A case study of Irish public health nursing : a model of service quality for families with infants

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ABSTRACT

Public health nurses (PHNs) in the Republic of Ireland are statutorily mandated to provide a service to families with infants, but little is known about this service. In addition, appraisal of service quality raises epistemological and methodological problems, particularly when seeking to take account of the organisational context. This study aimed to describe the service and develop a model that would enable service quality to be understood in a holistic way.

A collective case study was undertaken on the "bounded system" of the public health nursing service to families with infants. Quantitative and qualitative data were collected using newly-developed questionnaires, interview guides and field records. A national census of PHNs (response rate 54%; n = 946) and PHN managers (response rate 75%; n = 24) was undertaken. Group (n = 8) and individual interviews (n = 14) with clients, PHNs and PHN managers were carried out. Four "cases" of the public health nursing service to families with infants were also identified and individually analysed using triangulation of data, informants and methods. Analysis of four individual public health nursing services using themes, categories and codes was followed by cross-case analysis and the development of two hypothetical service models.

A thick description is provided of both the structure and process of the public health nursing service. Seven steps within a three-phase process (initiating, converging, preparing (pre-contactual phase), opening, interacting, closing (contactual phase) and following-up (post contactual phase)) are identified. Dimensions of influence on each of these steps are also identified, namely: time, knowledge, environment, communication and orientation. The findings demonstrate that the application of these five dimensions to the seven steps of process enable a holistic understanding of service quality.

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Chapter 1: Introduction and overview of thesis

The 1990s will be remembered as a time of unprecedented growth and financial investment in the Irish health services. This growth was accompanied by an increasing awareness of the need to demonstrate the value of services and consequently, a discourse around "quality" took root in policy and practice. This discourse included issues relating to performance measurement, indicators of quality, and continuous quality improvement. Towards the latter part of the 1990s it became increasingly clear that if services were to be developed and maintained, measures of quality that were easily understood and that would allow comparison between and within services would be necessary. Within the public health nursing service, there were concerns that important aspects of the service were not immediately explicit and therefore not amenable to measures of quality. This was particularly the case regarding work undertaken with families with infants, and within this context I started this study. My interest in families with infants, as a group with considerable needs, provided an immediate focus for a study about quality in the public health nursing service.

Chapters 2, 3 and 4 provide reviews of literature in key areas. Within the literature, I identified four significant issues relating to service quality and the Irish public health nursing service to families with infants. First, a lack of research on the public health nursing service itself meant that a comprehensive description of the service with this client group was not available. This led to a lack of clarity about whether issues arising in respect of service quality elsewhere were relevant, or transferable, to the Irish public health nursing service. A starting point for an examination of service quality was, therefore, a description of the public health nursing service. Second, it was clear that different stakeholder groups had different understandings of service quality and consequently, a comprehensive understanding of service quality would need to incorporate multiple realities. Three key stakeholder groups within the Irish public health nursing service were identified and these were public health nurses (PHNs), PHN managers, and clients Third, epistemological issues relating to service quality, particularly in respect of "how" service quality could be known, as well as "what" could be known of it, emerged. Outcome measurement as a dominant paradigm within the service quality literature was identified as problematic for the

public health nursing service with families with infants, largely because of difficulties in measuring "prevention" while accounting for complex and hidden processes of care. Thus, an exposition of the process of the public health nursing service to families with infants formed the key focus for my study. The fourth aspect of significance was organisational context and this emerged throughout the study as crucial to various stakeholders' constructions of quality. I was committed, therefore, to taking into consideration the organisational context within which the service was delivered. The overall aim of the study was identified on completion of the literature review, and this was to develop a model that would enable quality in the public health nursing service to families with infants to be understood in a holistic way. A "holistic" way would incorporate multiple stakeholders' constructions and the organisational context within which the service is provided.

The methodology and methods used are discussed in Chapter 5. A collective case study methodology was identified, from a "mini-review" of literature (Griffiths 2002), as an appropriate methodological approach, and the study was carried out in two phases. At the outset, triangulation was identified as a mechanism through which both phases could be synthesised. The first phase, guided methodologically by Yin (1994), was underpinned by Donabedian's (1988) work on service quality and included a national study of PHNs (response rate 54%; n = 946) and PHN managers (response rate 75%; n = 24). Five group interviews with PHNs (n = 3) and PHN managers (n = 2) were undertaken in two health board areas during this phase. Ethical approval for the study was granted by the ethics committee at the school of Nursing and Midwifery, King's College London. In the second phase, I was guided by Stake's (1995) work on case study. This phase was underpinned by the use of social constructivism as a unifying theoretical lens through which service quality could be explored and understood. I gathered data on the public health nursing service at four case study sites that were identified using theoretical sampling from data emerging from the national survey. Group (n = 3) and individual (n = 14) interviews with clients, PHNs and PHN managers were carried out and data emerging from these were supplemented by non-participant observation of the public health nursing service at each of the case study sites. Analysis of individual cases, followed by cross-case analysis and triangulation of data, sources and methods was undertaken.

The findings are presented in Chapters 6 and 7. In Chapter 6, I present a "thick description" of the public health nursing service to families with infants in the Republic of Ireland, drawing particular attention to differences and similarities in stakeholders' constructions of the service. Chapter 7 is specifically concerned with an exposition of the links between organisational context and the process of the service. A three-phase (*pre-contactual, contactual, post-contactual*) process of the public health nursing service to families emerged and, within this, seven steps were identified. The seven steps were *initiating, converging, preparing, opening, interacting, closing, following-up*. Five key concepts (*time, knowledge, communication, environment and orientation*) were also identified and their influence at each step of the process was considered in respect of service quality. Chapter 8 presents a discussion of the findings and situates the findings from this study within other available literature on public health nursing with families with infants and service quality. This discussion highlights areas of similarity between the findings from my study and other research undertaken. Specifically, the data from my study demonstrate that an understanding of process in respect of service quality encompasses the time prior to (pre-contactual phase) and after (post-contactual phase) direct contact as well as the more usual contactual phase. The findings also clearly illustrate that each of the five concepts identified (time, knowledge, communication, environment and orientation) can emerge from the organisational context within which the service operates and each directly influences each step of the process. These five concepts can, therefore, be understood as the structure-process links that are taken account of in constructing an understanding of service quality. There is good evidence to suggest that the combination of the seven steps of process combined with the five key concepts together provide a holistic model through which service quality can be understood.

This thesis takes the reader on a journey of exploration to identify a model that enables quality in the public health nursing service to families with infants to be understood in a holistic way. In doing so, multiple stakeholder constructions, the service process and the organisational context are taken into account. By the end of this thesis I am hopeful that the construction of this model will be clear to the reader and that the practical and theoretical contribution made will be explicit.

Chapters 2 - 4: Literature Review

Overview of literature review

The following review of literature comprises three chapters. The first chapter focuses on the public health nursing service to families with infants under one year in the Republic of Ireland. A conclusion that families with infants have increased needs is reached following a review of literature that makes explicit the excess morbidity and mortality in this client group compared with others. What is known of the Irish public health nursing service is then described and situated within an organisational and policy context. It is noted that there is a paucity of research-based literature available with regard to this service. With the exception of three research-based studies, the data presented are drawn from descriptions of the service published in the nursing press, book chapters and conference papers. Unpublished material from various statutory and professional organisations, including the Department of Health and Children (DoHC), health boards (HBs), the Institute of Community Health Nursing (ICHN) and the Irish Nurses Organisation (INO), is also used to provide an overview of the service. This section of the review concludes that an investigation of the public health nursing service to families with infants is warranted and timely.

Chapter 2 is concerned with the literature on service quality. Definitions and terminology commonly used are untangled, and terminology used to guide this study is made explicit. Attention is drawn to the many ontological issues arising from differing understandings of service quality and a need to take account of multiple realities in any investigation of this area is identified. In addition, epistemological issues arising from the complex and unexposed nature of public health nursing are discussed in respect of process and outcome measurement. This chapter concludes with an understanding that any examination of service quality should take account of the organisational context within which the service is provided.

Chapter 3 follows a clearly defined protocol systematically to identify and review six key studies that have either taken account of the multiple perspectives of stakeholders and /or have examined service quality within its organisational context. A synthesis of this literature is presented using the questions identified by Greenhalgh (2001) as a

guide, because this framework allows for comparison between and within different paradigms. Conclusions are drawn about the credibility of the studies included on the basis of a comparison of study questions, selection of settings and subjects, researchers' perspectives, collection of data, analysis of data, and results. The use of case study research was found to have considerable merit because it allows for the development of an understanding of how service quality within its natural setting is constructed by key stakeholders. A conclusion is drawn that case study research can enable an understanding of service quality in the public health nursing service.

Chapter 2: The public health nursing service to families with infants in the Republic of Ireland

2.1 Introduction

This chapter presents the literature on the Irish public health nursing service to families with infants less than one year. It presents definitions of the family and data related to family, maternal and infant needs. The public health nursing service itself is then situated within a broader context of health and other services to families, and the available Irish literature is used to make explicit the organisation and professional context of the public health nursing service. Drawing on research, policy and other literature, the rationale, aims and objectives of the service are then considered. This section of the literature closes with an analysis of the interplay between public health, health promotion and primary health care and examines ways in which these concepts inform public health nursing within the Irish and international situations.

2.2 Families

The family is constitutionally acknowledged as the most fundamental unit of the state of the Republic of Ireland (Commission on the Family (CoF) (1998). There is concern that the family unit is being undermined by problems such as marital breakdown (Department of Justice 1992), child abuse and neglect (Gilligan 1991, Ferguson and Kenny 1995), social exclusion (Department of Social Community and Family Affairs (DoSCFA 1998), drug and alcohol abuse (Department of Health (DoH) (1996a), increasing suicide rates (DoH 1996b), violence in the home (Ruddle and O'Connor 1992), an increasing divide between the rich and poor (DoSCFA 1998), and a growth in individualism (CoF 1998). Consequently, policy attention in recent years has been directed towards building capacity within families as a foundation for children's wellbeing (National Children's Office (NCO) 2000).

The CoF (1998) set out three ways in which capacity can be built. These are through greater investment in family and community resource centres, a refocusing of social welfare services, and making family support services at preventive level a priority. The public health nursing service forms part of the provision of family support

services at a preventive level. Many of these services are, *de facto*, focussed on the provision of services for children and most have evolved in an *ad hoc* way (Gilligan 1991). Several government departments are involved in their provision including ministries of health, education, justice, social community and family affairs, foreign affairs and environment (NCO 2000, DoHC 2001a). Sectors involved in the provision of services to children include professionals and others working in the statutory sectors identified above, the private childcare sector, and the voluntary sector. The health services, and within them, the public health nursing service, forms but one of many services with a focus on families with children. The CoF (1998 p40), however, notes that the public health nurse has a key role to play in family support and although it [the public health nursing service] "enjoys a well-deserved reputation for quality and excellence ... (m)aximising support for families calls for an urgent and radical reappraisal of the focus of the service and how it is delivered". It is timely, therefore, to examine quality in respect of the public health nursing service to families with infants.

2.2.1 Defining family

The definition of "family" is contested (CoF 1998, Cleary et al. 2001, Kiely 2001). Some authors identify the family as a social context within which learning takes place (Baggaley and Kean 1999) or within which relationships are built (Cleary et al. 2001). Others focus on the circumstances of coming together ("ties of mutual consent, birth and/or adoption or placement" (CoF 1998 p530) as well as on assumptions of responsibility (CoF 1998). Two contrasting understandings of family have influenced Irish policy development (Fahey 1998). In the first, "patriarchal familism", the prevailing ideal of family is presented as "a solidaristic, altruistic mini-community" where the family unit requires a clear internal structure of well-defined roles. In the second, "egalitarian individualism", the importance of the family as a social organisation is reduced and the needs, rights and obligations of individuals are given greater significance (Fahey 1998 p386). Within the latter paradigm, Kiely (2001) draws attention to "fathering" and concludes that the position of fathers is weakened because the legal child-father relationship is defined on the legal basis of the relationship between the father and mother. Others have argued that a gender bias in state services to families, including public health nursing services, creates a situation

that does not encourage fathers to get involved with their children (McKeown et al. 1998).

In nursing, family centred care has become an important element of community nursing (World Health Organisation (WHO) 1999). A concept analysis of family-centred care identified a four-tier hierarchy that placed parental involvement at its base, then parental participation, next partnership with parents, and concluded with family-centred care (Hutchfield 1999). Freidman (1998 p9), in the context of family nursing, views families as

> two or more persons who are joined together by bonds of sharing and emotional closeness and who identify themselves as being part of the family.

Questions of what constitutes the family as well as "who is the recipient?" of public health nursing care are raised here in order to focus this study. It might be argued that the service to the client group in question is the infant, the child, the infant and mother, the infant, child and mother, the infant and parents, or the family itself however that family is constituted. An absence of research on the public health nursing service in the Republic of Ireland makes it impossible at this point to say which, if any of the above are the most accurate grouping. Consequently, for the purpose of guiding the study, Friedman's (1998) definition of family is employed and only those families with infants aged less than one year will be included. The rationale for this relates to the literature presented below. This literature demonstrates that the first year of life is a time of high need for both the infant and the mother. It is a time, therefore, when the public health nursing service is likely to be needed.

2.2.2 Family needs

Service provision is underpinned by an implicit assumption that the recipients of the service have needs. Needs assessment and identification, however, is complex and many differing approaches to identifying health and social need have been developed. These approaches include

- *Epidemiological:* primarily concerned with the distribution of disease (Mausner and Kramer 1985)
- *Demographic*: based on socio-demographic differences between areas (Jarman 1984, Powell 1990, Small Area Health Research Unit (SAHRU) 1997)

- *Economic*: focusing on the interaction between need, demand and supply (Stephens and Gabbay 1991, Fowles et al. 1996)
- *Sociological* which identifies four categories of need including normative, felt, expressed and comparative (Bradshaw 1972)
- *Perceived health status* from the consumer view (Sackett et al. 1977, Plant et. al. 1996) and composite approaches, for example,
- *Rapid appraisal* which gathers information from a variety of different sources to identify need (Murray 1994).

These approaches mirror differing understandings of health, some of which are more relevant to the public health nursing service than others.

The Republic of Ireland has a population of nearly four million people and has an unusually young population compared with its European counterparts (Central Statistics Office (CSO) 2001). Children aged under fourteen years account for almost one quarter of the Irish population and infants under one year for 1.25% (DoHC 2000a). The crude birth rate in the Republic of Ireland has declined rapidly from 21.9 per 1000 population in the early 1980s to 14 per 1000 population in 1999 when there were approximately 50,000 new births (DoHC 2000a). Some demographic characteristics have been associated with higher levels of need. Mothers aged less than 20 years and those over 35 years, for example, have statistically significant higher rates of low-birth weight and stillborn babies (Fretts 1996, Geary et al. 1997). McKim (1987) found that older primagravid mothers (over 35 years) were more likely to report problems in infants less than one year than were younger mothers. In the past mothers who gave birth outside marriage were presented as having increased health and social needs (Jarman 1984) but this has been challenged in recent years. Two longitudinal cohort studies carried out in Ireland (Richardson 1991, Flanagan 2001) concluded that, according to certain criteria (for example, accommodation, income and expenditure, parenting and health status), single-parent families were not at a disadvantage compared with the marital family.

The year following the birth of an infant has been identified as a time of increased health need for women. One Irish-based study that examined general practitioner

utilisation rates found women were four times more likely to seek general practitioner (GP) care in the year following birth than at any other time in their lives (Nolan 1993). Although some of this excess is likely to be due to contraceptive needs, many other health needs have been identified. An interview survey of mothers (n = 280; response rate 86.6%) undertaken by Murray et al. (2000) found that over one third of women had problems caring for themselves and their baby. Breast-feeding mothers were more likely to have problems than those who bottle-fed. Breast-feeding is not common in the Republic of Ireland. In 1993, the average breast-feeding rate immediately after birth was 33% (DoH 1997a). National statistics on breast-feeding rates have not been collated since that time but concern continues to be raised about the low breast-feeding levels (DoHC 2001a). In the United Kingdom (UK), Bick and MacAuthur (1995) found high levels of morbidity in women following birth. Specific problems reported included backache (46%), headache (20%), extreme tiredness (40%), and stress incontinence (22%). These health problems were shown to have a considerable impact on women's lives and, although one-third of women still experienced difficulties at 6-7 months post-natally, the majority had not sought any medical assistance. Other studies have found high prevalence rates of post-natal depression in the first year after a birth (Cox et. al. 1987, Harris et al. 1989).

Social inequalities, first reported by Black et al. in 1980 (Black et al. 1980), have taken a prominent position in the recent Irish policy literature (DoHC 2001a, 2001b). The concept and measurement of poverty is contested particularly in relation to the variety of methods used to determine poverty (Nolan 1994). Nevertheless, there is agreement that families with children face a much higher risk of falling below the poverty line than those without children (Callan et al. 1994) and it has been estimated that up to one third of Irish children live in poverty (DoSCFA 1998). In the Republic of Ireland, people from lower socio-economic classes have been found to have higher general practitioner utilisation patterns (Nolan 1994), poorer health beliefs and practices (McCluskey 1989), increased perinatal mortality (DoHC 1997a), and higher accident rates in children (Laffoy 1997). Children from the Irish travelling community are considered to be particularly vulnerable in terms of health and social need (Barry et al. 1987, DoHC 2000a) and the infant mortality rate, at 18.1 per 1,000 live births, is almost three times as high as that of the settled community. Social

inequalities have been found to have an impact on health visitors' work in the UK (Reading and Allen 1997). Significantly, more parents with a disability or health problem were identified in caseloads considered disadvantaged compared with those considered affluent.

The infant mortality rate in the Republic of Ireland has decreased dramatically in recent years, from 14.6 /1000 in 1980 to 6.2/1000 live births in 1997, a rate that is comparable with the Eur15 rate of 6.1/1,000 live births (Eurostat 1994). The main causes of infant mortality in 1999 were: congenital abnormalities (37%), sudden infant death syndrome (SIDS) (14.5%), difficulties associated with pregnancy and labour (11.1%), and infectious diseases (4.6%). A questionnaire survey of Irish families with infants (response rate 55%; n = 358) reported that parents continue to engage in unsafe practices with their infants, including over-wrapping (68%), co-sleeping (20%), and exposing infants to adult smoking (60%) (Cullen et al. 2000).

Although there is a lack of a co-ordinated overall data set, some data about infant morbidity in the Republic of Ireland are available through routine statistics (e.g. infectious diseases, immunisation uptake, child abuse), registers (for example, intellectual disability register, Eurocat register for abnormalities), and research studies. Recently published uptake rates for DPTa/ HIB/Polio immunisation rates (86%) and MMR (75%) (DoHC 2000a), while continuing to fall well short of the target of 95%, represent an improvement on the findings from a previous review of published literature (Harrington et al. 1996). The most commonly notified infectious disease in the Irish population is gastro-enteritis in children under 2 years although it is generally believed that under-reporting of infectious diseases, similar to other countries, is common (Denyer et al. 1998). Dublin has been found to have a higher prevalence rate of congenital anomalies (242.7/10,000 live births) than many other European cities and the incidence of neural tube defects (10.1/10,000 live births) and downs syndrome (21.0/10,000 live births) are particularly high (EUROSTAT 1996). A National Intellectual Disability database, established in Ireland in 1995, identified a prevalence rate of 7.57/1000 per total population (Health Research Board (HRB) 1996). Child abuse and neglect is also subject to DoH review, and statistics have shown a considerable increase in the number of notifications of child abuse and

neglect (Buckley et al. 1997). Between 1983 (434 notifications) and 1995 (6,415 notifications) there was a fourteen-fold increase, although it has been suggested that "sensationalist media reporting" has contributed to this increase (McDevitt 1998).

Research studies have generally concentrated on accidents in the child population. In one study, four percent of all accidents to children under 14 years occurred in infants under one year. The most frequent cause of accidents was falls (Laffoy 1997). Another study reported that seventeen percent of all attendees at an accident and emergency department were under one year (Mallon et al. 1997) and, although most of the reasons for attendance were medical or surgical in origin, a very high percentage (36% of all children seen) were due to accidents. Standard mortality and morbidity data are important, but incomplete, descriptors of child health, because simple prevalence rates of individual conditions fail to capture the full nature of ill health (Starfield 1991). These statistics, nevertheless, provide some indication of the excess mortality and morbidity in the first year after birth.

Families with health problems and concerns, in the Republic of Ireland (Lowry and Lillis 1993, Keenaghan and Stakelum 1998) and elsewhere (McKim 1987, Pearson 1991, Pridham 1997, Jansson et al. 1998), are more likely to refer to lay rather than professional sources of help. Nonetheless, there is a substantial literature available from other countries on the effectiveness of PHNs and their interventions in families and this is discussed later. In a country where the family is constitutionally acknowledged as the most fundamental unit of the state, the concerns identified above have resulted in a focus on strengthening the family and the identification of resources for health (CoF 1998) and, within this framework, on preventive services. The public health nursing service is a significant service in this regard and this service is now discussed in the context of the broader health services.

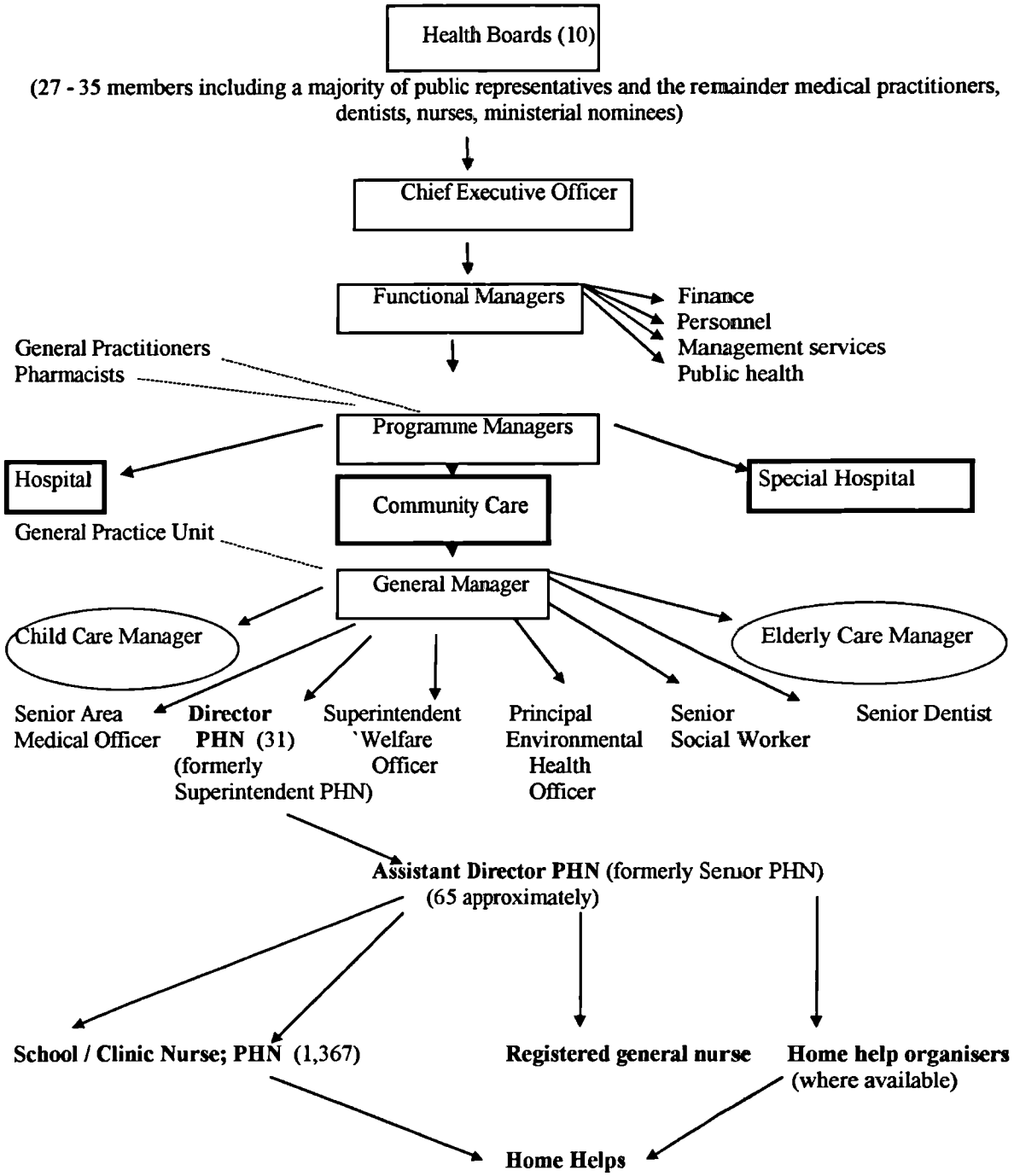
2.3 Health Services in the Republic of Ireland

From a poor base in the seventies and eighties, there has been substantial growth in policy development since the mid-nineties, built on the Strategy for Health (DoH 1994). This strategy is underpinned by three core principles and these are

- Equity
- Quality of service and
- Accountability.

The strategy for health has recently been replaced by a new strategy called Quality and Fairness: A Health System for You (DoHC 2001a) where a fourth core principle of "people-centredness" has been included. Service quality remains a core principle and consequently is an important area for investigation in the Republic of Ireland. Figure 2.1 provides an overview of the organisation of the health services.

Figure 2.1 Structure of Irish health services, community care programme and public health nursing service



Legend: ——— No reporting relationship;
——— Direct reporting relationship

Sources: Hensey (1988), Curry (1993), DoHC (2001a)

Health services in the Republic of Ireland are organised according to three broad programmes, a hospital programme, community care programme, and special services programme (Figure 2.1). Until the year 2000 there were eight health board areas but since that time, two further health board areas have been created (DoHC 2001a). Each health board is divided into between three and five community care areas (CCAs) and, although the number of people in each CCA varies, they serve, on average, 130,000 people.

Within each CCA, health professionals who provide services for children usually include social workers (Gilligan 1991, Buckley et al. 1997, DoH 1997b), area medical officers (AMOs) (Gilligan 1991, Ferguson and Kenny 1995), speech therapists (DoH 1997b, Denyer et al. 2000), and community welfare officers (CWOs) (Gilligan 1991). GPs (Denyer et al. 2000) and practice nurses (DoH 1997b) have also been identified as having a remit with infants although they are not directly employed by the health board. Consultant specialists for both vision and hearing are also involved in the provision of services (Kelly 1995, Denyer et al. 2000) although, in general, they tend to be part of the acute care rather than the community-care programme. PHNs are unique among the other professionals working with families with infants because of the combination of the following two reasons. First, they are the only professional group to provide a universal service free at the point of delivery. Second, their service can be delivered in many different settings including the home.

The delivery of the public health nursing service within the context of a multiplicity of providers and a multi-disciplinary team may be a factor that influences service quality and is taken in to account in this study. Much discussion has taken place internationally about effective team-work. Issues identified include concepts (Pearson and Jones 1994), barriers (Vanclay 1997), enhancers and effectiveness of intra-professional (Griffiths and Luker 1994, Wiles and Robison 1994) and inter-professional (Poulton and West 1993, Barr 1997, Snelgrove and Hughes 2000) teamwork. Teams are developed not created, and regular and effective communication has been identified as a central component of good team-working (Sines 1995, Vanclay 1997). Consequently, they require investment on an

organisational, professional and inter-personal level (Barr 1997). Such investment is not evident in the Irish situation. A case study of child protection practices in one health board area reported that, although there was evidence of good inter-professional co-operation, some interagency and inter-professional difficulties existed including communication and feedback problems (Buckley et al. 1997).

2.4 The public health nursing service

PHNs are the only nurses universally available in the community in the Republic of Ireland although this situation is changing (Hanafin et al. 2001). In 1999, there were 1,750 PHNs on the Bord Altranais live register, although not all of them were working as PHNs (DoHC 2000b). There is a two-tier hierarchical management structure in place for public health nurses, an assistant director of public health nursing (known as senior PHN until 2000) and a director of public health nursing (known as superintendent PHN until 2000). PHNs are, for the most part, attached to a geographical area with a population of, on average, 2,500 people although this figure masks considerable local and community care differences (DoH 1997b). Variation between and within health board areas in the ratio of PHNs to population size was identified as far back as 1975 (DoH 1975) and this variation continues to be identified in local (South Eastern Health Board (SEHB) 1994, Kelleher 1995) and national (DoH 1997b) reports. This variation may have an impact on service quality but nothing is known of the extent of the variation or of how it operates.

The geographical attachment of PHNs contrasts with the organisation of community nursing services in other countries where attachment to general practices is common (Van der Zee et al. 1994, Synods 1997). Irish PHNs, like those in Sweden (Borg and Ramklint 1987), work from a health centre situated in or near their geographical district (Chavasse 1995) and carry out both home visiting and clinic activities (Burke 1986, ICHN (Institute of Community Health Nursing) 1993). A small number of PHNs are not attached to geographical areas and have specific remits in school nursing or specialists clinics (for example, chest clinics, sexually transmitted disease clinics) which have arisen from their historical background (DoH 1997b).

2.4.1 Educational preparation

The Irish public health nursing service is an amalgam of three separate community nursing services that came together in 1956. These three services comprised midwives, nurses employed by the Local Health Authorities (replaced in 1970 by Health Boards) who were mainly concerned with public health issues, and the voluntary district nursing service (DoH 1975). PHNs are registered general nurses and midwives and have undertaken a one-year higher diploma in public health nursing in one of two universities (University College Dublin, National University of Ireland, Cork). Nurses and midwives who have undertaken the health-visiting course in the UK are also eligible for entry to the public health nursing register. There is some discussion and debate at the present time about the requirement of midwifery for preparation as a PHN and policy makers have made a recommendation for its removal (An Bord Altranais 1994, DoH 1997b, Commission on Nursing (CoN) 1998). A recent questionnaire survey of PHNs found that almost ninety percent (89.9%; n = 591) of respondents did not support this recommendation (Kyne-Doyle 2002). A low response rate (35%; n = 658) and the completion of questionnaires at health centre rather than individual level by some respondents are limitations of this study. Neither under- or post-graduate education for PHNs has been the focus of any study and consequently little is known of the extent to which PHNs have undertaken additional studies. Further, no information about the on-going educational needs of PHNs is available despite the very broad remit held by them, and the increasing levels of specialisation in many areas of nursing.

2.4.2 Aims and objectives of the service

Since 1997, four review bodies (DoH 1997b, CoF 1998, CoN 1998, Denyer et al. 2000) have made recommendations and suggestions for the organisation, structure and function of the public health nursing service. Despite this, the mandated policy context for public health nursing has remained largely unchanged since 1966 (DoH 1966) although this is currently under review again.

The "ultimate" aim of the service is to "make available" a comprehensive universal community nursing service for all groups in the population (DoH 1966 p3). A number of duties and client groups were identified in this circular and these are:

- Assisting the district medical officer at clinics
- Domiciliary nursing in co-operation with the appropriate medical practitioner, including nursing of the aged and chronic sick
- Compilation of a register of elderly persons, regular visitation to advise and assist them through liaison with officers of the board
- Domiciliary midwifery services
- Follow-up of at-risk children
- After-care of patients discharged from district mental hospitals
- Duties relating to the care of mentally handicapped children at home
- Health education and propaganda among families with a view to encouraging them to avail of immunisation, maternity and child welfare services
- Duties in connection with child welfare clinics and the school health examination service.

Many changes have taken place since 1966. Home births, for example, now account for only 0.5% of all deliveries in the Republic of Ireland (CSO 1997) and in general, PHNs are not involved in the provision of a home confinement service to mothers although there are exceptions to this (Mulcahy and Dempsey 1999). An increase in community mental health nurses (Sheridan 2000) has meant that the after-care of patients discharged from psychiatric hospitals is not necessarily undertaken by the PHN. There is some evidence that registered general nurses (RGNs) are employed on a temporary part-time basis in the community (CoN 1998) although the extent of this service is unclear. Where RGNs are not available, however, PHNs continue to have responsibility for the provision of general nursing care (Hanafin et al. 2001).

O'Sullivan (1995) in an "exploratory study" of perceptions of the strengths, weakness, opportunities and threats facing the service, carried out face-to-face interviews (n = 37) with a variety of personnel including, PHNs, PHN managers, other managers, hospital based nurses, and representatives of other professions. He concluded that the generalist nature of the service meant that there was a considerable lack of clarity about its boundaries and that the ageing population was increasing the pressures towards the "non- preventive" aspects of the PHN role.

In summary, the educational preparation of PHNs in general nursing, midwifery and public health nursing reflects the generalist nature of the service where there is involvement with multiple client groups and interaction with multiple organisations. There are many dimensions to the work of PHNs and there is a stated intention, at least, that the service works for and within communities. Within this, any individual client group, and any individual aspect, forms only a small part of the service. The explicit statutory basis for working with families with infants, however, lends considerable weight to the importance of this client group within the overall context of the service. The preventive work, generally undertaken with families with children, has been identified by PHNs themselves as "crucial" (O'Sullivan 1995 p51).

2.4.3 The public health nursing to families with infants

Rationales underpinning the public health nursing service to families with infants under one year have been restated by Denyer et al. (1998 p3) in their review of the "screening and surveillance service". These include:

- the acceptability of this service to the public
- the importance of the identification of children's needs (including social, medical, emotional and educational needs)
- the provision of an opportunity for families who may not usually come in contact with health professionals to access services
- the advocacy role played by these services in facilitating access to appropriate services by families with identified needs
- the unique opportunity to access the population at a critical age in life which facilitates assessment of population health status and enables the collation of epidemiological information
- the facilitation of health promotion, and
- the development of a high level of expertise, by professionals involved in the service, in a wide range of areas of child health.

PHNs' work with families with infants has a dual legislative and policy mandate. The mandate identified above by Denyer et al. focuses primarily on the promotion of

positive health and the early detection of problems in children. This mandate has its roots in the Notification of Births (Extension) Act 1915 Section 2 (1) and has been carried forward in all subsequent legislation. Consequently, all new-born infants are "notified" to the CCA and from there to the PHN. The second mandate is informed by a need to protect children and this mandate has its legislative roots in the Children Act 1908, an Act that was not replaced until the Child Care Act 1991. Many of the family services developed throughout the 1990s were underpinned by this Act and child protection services were prioritised over those of child health. There have been some attempts to redress this imbalance over the last two years and these attempts culminated in the publication of a National Children's Strategy (NCO 2000).

The community child health services, or as Denyer et al. (1998) name them, "screening and surveillance services" were developed following the ministerial circular 20/70. This service was established broadly in line with the recommendations of the 1967 study group set up to examine children's health (DoH 1967). The stated objectives of the service were:

- to ensure that, by regular screening, pre-school children develop both physically and mentally in a healthy and normal manner
- to discover and arrange for the further investigation or treatment of any deviation from normal
- to promote the proper management, feeding and care of infants and pre-school children and of good health practices.

The service is delivered through PHNs, AMOs and GPs and is universally free at the point of delivery. In December 2001 the recommendations of a report (Denyer et al. 2000) commissioned by the chief executive officers of all eight health board areas were adopted as national policy (DoHC 2001a). This report makes a number of recommendations about the way in which the service should be provided, the professionals involved in providing it, and the components of the service. They recommend that community child health nurses (CHNs) be employed to implement the screening and surveillance programme although they do note that PHNs, by virtue of their training, would be suitable for such positions. Activities to be undertaken by

the CHN, they note, should include four contacts with families in the first year of life for "history", "examination", and "health education" purposes. They propose antenatal visiting to introduce the range of services, follow-up of the child with complex needs, including those who have been abused, follow-up of immunisation status, and provision of additional support for first-time and vulnerable parents. Although some references are made to the family unit and to the broader determinants of health, in general, this policy is underpinned by an ideology that favours medical and behavioural change approaches to health promotion activities.

2.4.4 Components of the service to families with infants

The extent to which the PHN is already involved in the activities outlined above is not clear because little empirical evidence regarding the substance of PHNs' work with families with infants is available. The research-based evidence we have is derived from Burke (1986) and the South Eastern Health Board (SEHB) (1994) who carried out time and motion studies on PHNs' activities. Data regarding the public health nursing service to families with infants and children from these studies are compared in Table 2.1. One further research study undertaken by O'Sullivan (1995) focussed on the public health nursing service within the context of community care trends, and developments and findings from that study were outlined earlier. Other data about the service comes from published papers (Chavasse 1995, Kelly 1995, Hanafin 1997a, 1997b, 1998, Finn 1999, Morrisey 1999) and policy reports (DoH 1997b, CoN 1998), as well as grey literature, including conference presentations (Curry 1997, McKenna 2000) and submissions to policy-makers (ICHN 1993, 1997, INO 1996).

Quantification of PHN time spent on child health visits

Table 2.1 identifies the main categories of activities undertaken by PHNs in their work with families with children as presented in a national study by Burke (1986) and a regional study by the SEHB (1994). The SEHB used many (but not all) of the same categories as Burke (1986) and so some comparison over time is possible. Although categories of activities were pre-coded and are considered to be incomplete, they nonetheless provide the reader with some understanding of the broad areas of the PHNs' work with infants.

Table 2.1: Percentage of PHN time by category

	Burke (1986) National	**Burke (1986) SEHB**	**SEHB (1994)**
Overall percentage of time on domiciliary visiting	59	56	50
Percentage of domiciliary visiting on child health	15	12	10.2
Ante-natal	1.5	2.7	0.9
Developmental	82	72	52.6
Vulnerable / at-risk	14.7	21	21.5
Family surveillance	2.1	4.2	-
Birth notification			13.3
Overall percentage of time at clinics	12	17	8.2
Percentage of clinic time on child health	32	23	54
Developmental	21.3	15.7	45.6
Immunisation	12.9	7.2	28.2
Other child health clinics			26.2

It can be seen from Table 2.1 that practice with families is enacted in both the home and clinic settings. PHNs' work with children in the home is, to a large extent, focused on "developmental work" (82%) although it is likely that this work entails more than just developmental screening. Other categories identified include "vulnerable or at-risk families" (14.7%), family surveillance (2.1%), and antenatal care (1.5%). Although the DoH (1978) prescribed primary, secondary and tertiary roles for the PHN in their categorisation of her work with families, neither Burke (1986) nor the SEHB (1994) quantified the workload of the PHN with regard to primary prevention.

The amount of time spent on domiciliary child health visiting decreased in the SEHB between 1986 and 1994 (from 12% to 10% of overall time). Although the amount of time spent on developmental work also decreased (from 72% to 52.6%), this can be partially explained by the inclusion of an additional category in SEHB (1994) for "birth notification" visits. The overall amount of time spent on clinics decreased for PHNs working in the SEHB from 17% (1986) to 8.2% (1994) although the proportion

of time given over to child health clinics increased as a proportion of that time (from 23% to 50%). Given the length of time that has elapsed since national data were compiled, it is timely to examine the extent to which PHNs are involved in domiciliary and clinic contact with families with infants, and to investigate to what extent there are differences across health boards.

The role of the PHN is now presented using a framework of primary, secondary and tertiary prevention. Primary prevention in child and family health "revolves around promoting and enhancing the family's growth by providing anticipatory guidance" (McMurray 1993 p23). There is some degree of consensus that PHNs have a primary prevention role, in theory at least (Kelly 1995, Hanafin 1997a, Morrisey 1999). Kelly (1995), for example, in a description of the service, writes that PHNs give advice on the physical and emotional needs of the child while Morrisey (1999) notes that PHNs inform all new parents on the availability of local clinics and resources. Other specific areas identified include advice on immunisation (ICHN 1993, INO 1996, Denyer et al. 2000), infant feeding (Kelly 1995, Curry 1997, Finn 1999), accident prevention (ICHN 1993, Curry 1997, Hanafin 1997b, Finn 1999), positive parenting (Curry 1997, Murphy 1999), dealing with domestic violence (SIPTU (Services Industrial Professional and Technical Union) 1992), and the prevention of child abuse and neglect (Butler 1996, Hanafin 1998).

Screening is a core activity of secondary prevention (Davies 1995). It has been defined as

> a process of active, presumptive detection of unrecognised disease, illness or deficit in asymptomatic, apparently healthy, individuals (Mausner and Kramer 1985 p214).

Difficulties in respect of the screening processes undertaken by Irish PHNs have not been articulated although there is a controversial international literature on the benefits of such programmes for infants and children (Browne 1995, Douek 1995, Hall 1996, 2002). The public health nursing record held by PHNs for each infant identifies areas related to gross and fine motor development, vision, speech development, and social development and it is likely, therefore, that screening takes place in respect of these areas (Bruton Consultants 1995 p112). No data are available, however, on the exact nature of PHNs' work in this regard. Anecdotal evidence is also

available in respect of the identification of maternal and family difficulties (Kelly 1995, Curry 1997, Hanafin 1998). Curry (1997), for example, suggests that the mother's coping ability, family relationships, present health, expectations, and personal concerns are all taken into account by PHNs. She writes that

> observations and assessment are made of management skills, problems with other siblings, housing problems, child-minding problems, and maternal health problems such as post-natal depression (Curry 1997 p3).

Others, in their descriptions of the service, support this but the extent to which it takes place, particularly in the absence of an explicit mandate, is not clear (Kelly 1995). Financial inducements recently offered to GPs to provide a developmental screening service for "vulnerable" children may reflect a perception that even screening checks by PHNs for growth and development are not taking place (SHB (Southern Health Board) 1996).

"Nursing actions which help parents through the process of rehabilitation or health maintenance following illness or injury constitute tertiary prevention" (McMurray 1993 p24). In the context of child health, this means intervening in situations where specific problems have been identified. The only available data in this regard for the Irish public health nursing service refer to child protection, and these data are conflicting. Some have suggested that the PHN has taken on a child protection role (CoN 1998, Hanafin 1998, O'Farrell et al. 1999). Others have written that they have not taken on this role. Butler (1996 p308), in a single focus group methodology of PHNs (n = 12) reported that

> PHNs sought to distance themselves from child protection activity by labelling it as being clearly outside their domain and as having little to do with their routine work in the child development / health area.

Gilligan's (1991) assertion that PHNs are a key referral source to social workers is not supported by the findings of one case study where only 4% of social work referrals came from PHNs (Buckley et al. 1997). Surprisingly, however, PHNs were contacted in almost half of all initial investigations (47%) and 89% were noted to be "helpful".

In summary, there has been little empirical investigation of the practice of public health nursing in the Republic of Ireland although some anecdotal evidence is

available. With the exception of O'Sullivan (1995), the available data have concentrated on quantifying time spent on various activities and there has been relatively little discussion of what the PHN actually does or about how she does it. Anecdotal evidence suggests that PHNs have primary, secondary and tertiary prevention roles with families with infants although the specific elements of those roles have not been researched. This will also be an area for investigation in this study.

2.5 Constructs of Public Health Nursing

Questions about whether the PHN in the Republic of Ireland has the same function, remit or responsibilities as health visitors (HVs) or PHNs elsewhere have not been asked and some difficulties arise in understanding the role of the Irish PHN within an international literature. First, the variety of different titles used by nurses working outside institutional settings may or may not reflect differing activities, philosophies, client focus, and remit of these nurses. The title PHN has been subject to little discussion in the Irish situation although Chavasse (1995) suggests that the title community nurse is more accurate. A review of the Irish public health nursing service adopted the definition of the PHN as

> a nurse who is registered in the public health division of An Bord Altranais. To be so entitled she must be a registered general nurse and a registered midwife and have undertaken a public health nursing course currently leading to a diploma. A PHN is appointed to a Health Board (DoH 1997b p7).

In Ireland, therefore, the PHN is defined in terms of educational preparation and employer. Carraher and McNabb (1997) suggest that the key issue in the debate about public health in nursing is to distinguish between the contribution of individual nurses to public health and the specific role or function of a nurse with the title of, or responsibility for, public health. Others have also raised this issue (Chalmers and Kristajanson 1989, SNMAC (Standing Nursing and Midwifery Advisory Committee) 1995, Billingham 1998). Elsewhere, a focus on the population has been identified as the hallmark of public health nursing (Reutter and Ford 1996) although there is some ambiguity and vagueness about the elements of working at population level (Chalmers and Kristajanson 1989). Others, for example, Baldwin et al. (1998) have differentiated between PHNs and other community nurses in terms of their

orientation. Nurses that have a focus on illness, they suggest, cannot be considered PHNs. Part of the remit of PHNs in the Republic of Ireland is the provision of clinical nursing care and part of their orientation must therefore be towards people who are sick.

Other themes that are common to health promotion, public health, community health nursing and primary health care are understood in differing ways within the literature and this further complicates comparisons. Bryar (2000), for example, points out that the definition of primary care has been open to such wide interpretation that it raises a question of whether primary care itself defies definition. Confusion and obfuscation are evident in the Irish context where the primary care strategy document identifies primary care as synonymous with general practice but nevertheless draws heavily on the Alma Ata declaration (WHO 1978) to interpret their understanding as incorporating all community based services (DoHC 2001b).

Public health has been defined as "the health of the people" although the most commonly used definition is that of Acheson (1988 p289) as "the science and art of preventing disease and prolonging life through the organised efforts of society". Some have written that health promotion is the "new public health" (Ashton and Seymour 1990, Catford 1995) and others suggest that all nursing is intricately bound up with health promotion, and concern should not be raised about the blurring of boundaries (Delaney 1994). Some differences between nursing and health promotion have been made explicit. Empowerment has been identified as a central element of health promotion (WHO 1986), as one of five approaches to health promotion (Naidoo and Wills 1994) and as a way of differentiating health from sick nursing (Macleod Clark 1993). Benson and Latter (1998 p104), report that

> Encouraging students to think about health promotion as an empowering, holistic individualized approach applicable to any interaction as opposed to telling people what to do about unhealthy habits has proven the most difficult issue [in health promotion].

Other aspects of public health nursing work include client participation, needs assessment, prevention and detection of disease, and a population rather than an individual/family focus. Client participation in care is considered fundamental to public health practice (Lynch 1997) and also to primary health care (WHO 1978).

Latter et al.'s (1992) study of nurse managers' perceptions of health education practice in general acute ward settings (n = 142; response rate 73%) found that although health education is generally a feature of practice, "lay participation in care is less well integrated in nursing care". The authors conclude that "encouraging participation in care requires a new philosophy" (p171).

Client participation, needs identification and public health have been inter-linked by Lynch (1997) who writes that client participation is central to whether needs assessment is undertaken in a public health way. Needs identification is a complex area but is, nonetheless, a theme common to health promotion (Hall 1996), public health (SNMAC 1995), and health visiting (CETHV (Council for the education and training of health visitors) 1977), and public health nursing (Duffy et al. 1998). Where it takes place at the community level it is linked with public health and health promotion. An Irish questionnaire study on the beliefs and practices of PHNs (n = 61; response rate 97%) reported that 56% of PHNs had been able to implement community participation in the course of their work and 85% felt it was possible, in theory, to implement (McDonald and Chavasse 1997). These findings support those of Quirke et al. (1994) who undertook an action-research project in the West of Ireland on community participation in community needs assessment. A similar project in Strelley in the UK with a HV concluded that client participation in needs assessment was more likely to work if the person appointed to the project was able to concentrate only on that (Jackson 1997).

The prevention and detection of disorders is a key area identified both in definitions of public health (Hickey 1990, Jacobson et. al 1991, SNMAC 1995), health promotion (DoH 1995), and public health nursing (Hanafin 1997b). It has also been identified as an element of community nursing (Stanhope and Lancaster 1992, Van der Zee 1994, Jansson et. al 1998). This element of the work of PHNs in the Republic of Ireland in respect of families with infants has been made explicit in policy (DoH 1966, 1970, Denyer et al. 2000), descriptions of the service (Chavasse 1995, Kelly 1995, Hanafin 1997b) and research undertaken (Burke 1986). PHNs in the Republic of Ireland do appear to incorporate some of the elements of public health, primary health care and health promotion in their work. The extent to which any one of the

above elements forms a focus for the work of PHNs is not clear, although there is some agreement that the prevention and detection of disorders forms an inherent part of that work.

2.6 Summary

This chapter has presented data on the needs of Irish families as well as on their unique position within the Irish constitution. It has drawn on the published and grey literature to provide a description of what is known of the Irish public health nursing service to families with infants. In doing so, it has argued that the year following the birth of an infant is a time of increased need. This, coupled with the statutory obligation of PHNs to provide a service at that time, makes families with infants an important focus for investigation. A key issue of constructing a meaning for 'public health nursing' and the interplay between public health, primary health care and health promotion have raised questions about how the public health nursing service in the Republic of Ireland can be situated within an international context. The literature has also demonstrated that while some anecdotal evidence is available, there is a dearth of research relating to the Irish public health nursing service with this client group. Consequently, a key objective of this study will be to describe the public health nursing service. In describing the service a more complete understanding of how it operates in practice will be facilitated and this will enable comparison with services elsewhere. A key focus of this study is service quality and, although a description of the public health nursing service is an essential step in understanding this area, many other issues of importance are raised in the literature. The following chapter presents the literature on service quality and, in doing so, highlights the complexity of this area.

Chapter 3: Service quality

This chapter focuses on service quality and, in tracing its evolution from the industrial sector, draws attention to differences between health care and other sectors. Challenges in defining quality and ontological issues arising from differing understandings of service quality are explored. The importance of taking account of the organisational context is discussed. Finally, epistemological concerns arising from process and outcome measurement are explored and the implications of each for understanding quality in the public health nursing service identified.

3.1 Introduction

Although nurses have been concerned with quality of care since the Florence Nightingale era, the origins of the current preoccupation with quality in the health services are located in the corporate / industrial sector (Joss and Kogan 1995). There are a number of differences between industrial and health care contexts and these include infinite demand but finite resources; undemanding clients; complex consumers; the "high intangible" content and high professional component in health services (Øvretveit 1992). Pfeffer and Coote (1991 p25) note that in welfare services the causal links between customer satisfaction and efficiency are reversed. In business, "satisfying the customer aids efficiency and enhances profitability", but in welfare "satisfying the customer will not aid efficiency (or only fortuitously)".

3.1.1 Definitions

Dictionary definitions of quality as "the degree of excellence of a thing" (Thompson 1995 p1119) suggest to the reader that quality is clearly identifiable, tangible, and therefore easily measured. More than twenty years ago, Van Maanen (1979) wrote that the concept of quality in health care was nebulous and lacked consistent definition in the literature. More recently, Attree (1993 p369) concluded, following a concept analysis of "quality", that it is "enigmatic and multi-dimensional". A 12-page glossary of terms encountered in an article on quality and consumer service (Moores 1996) suggests that quality and its measurement remains as inconsistent, enigmatic

and nebulous a concept as it was twenty years ago. Pfeffer and Coote (1991 p1) offer a rationale for the "slippery nature and elusive meaning" of service quality. First, they suggest, meaning changes depending on whose interests drive it, different people experience quality in different ways and finally, they argue that although the word is often applied to a process, what ultimately matters is the outcome and that varies according to the context.

3.1.2 Terminology

The literature on quality is notable for the range of terminological and other assumptions that underpin it and this is particularly the case when presenting information about the people involved. Terminology used to identify, in a collective way, the people who use the service includes patient (Wensing et al. 1994, Larsson and Larsson 1999), customer (Joss and Kogan 1995), consumer (Williamson 2000, Richards 2001), and client (Pearson 1991, Payson et al. 1998). Those involved in delivering the service may be referred to as professionals (Parsley and Corrigan 1994), staff (Von Essen and Sjödén 1991), or disciplines. Those concerned with managing the service may be managers (Dixon and Baker 1996), payers (Kleinpell 1997), or providers (Mooney and Munton 1998, Payson 1998). Assumptions and values underpin each one of these "titles" although some are more explicit than other. A "patient" suggests being sick, a "customer" suggests buying something, and a "consumer" suggests having choice. Being a "provider" suggests having something to give and also a willing recipient, and being a "professional" suggests operating according to a code of conduct.

One study that investigated preferences for different titles reported that doctors and psychologists say that "patients" prefer to be called "patients" (Naseem et al. 2001). "Patient", however, is a particularly unsuitable title in the context of public health nursing with families with infants because of the implicit association with sickness. Although each of the other titles is underpinned by certain assumptions also, the title of client is commonly used in public health nursing literature and appears at this point to be the most value neutral. Clients or client group will, therefore, be used when the group under study (families with infants under one year) is referred to collectively. PHNs will be referred to as service providers although occasionally it may be

necessary to refer to them as a professional group. PHN managers will be referred to as managers because in the Irish situation this is the most commonly used title for people who have operational and strategic responsibility for services (Joyce and Ham 1990, Dixon and Baker 1996, DoHC 2001a). Where all three groups are referred to collectively the term stakeholders will be used.

Other terminology used is also problematic. Quality is often described in buzzwords, synonyms and acronyms. Quality Assurance (QA) has been identified as the early terminology and more recent terminology includes QM (Quality Management), QAI (Quality Assessment and Improvement), CQI (Continuous Quality Improvement), and TQM (Total Quality Management) (Ellis and Whittington 1993). Acronyms used include ABCD (Above and Beyond the Call of Duty), DYSS (Dynamic Standard Setting), PDSA (Plan, Do, Study and Act), and SPC (Statistical Process Control). The extent to which buzzwords, acronyms and synonyms are used may be, in part at least, a reflection of the corporate origins of quality where brand name recognition and recollection are important elements of company survival (Whitford and Bird 1996). Their use in the health service context, however, may have contributed to the over-simplification of a complex area and led to assumptions that assessment of service quality is unproblematic. The vast array of tools and methods developed for examining service quality including, for example, benchmarking, blueprinting, accreditation, anticipated recovery pathways, clinical audit, cause and effect diagrams, continuous quality improvement, PDSA cycles, and consumer satisfaction measurement, provide evidence of a methodologically and epistemologically complex problem. The challenge of achieving clarity when writing about quality is considerable. Quality of nursing can be understood as quality of nursing care or quality of nursing service and these terms are often presented as synonymous or used interchangeably. In this study "public health nursing service quality" is used to describe the phenomenon under examination.

3.1.3 Evolution

Evolutionary stages in terminology and in the practice of quality in industrial and corporate settings have been noted by a number of authors (Dale et al. 1990, Irvine and Donaldson 1993, Joss and Kogan 1995, Jaros and Dostal 1999). There is general

agreement that, initially, quality was inspected and controlled, then assured, then managed and finally, totally managed. The search is now on for "beyond total quality management" and in some countries (for example, the UK, New Zealand) this search has led to clinical governance. Evolution in terminology has been mirrored by a concurrent evolution in the practice of quality. In the early days, quality was controlled, often through the application of complicated statistical analysis, to identify faulty products and remove them from the chain. This was followed by QA where the focus shifted from identifying faulty products to "zero defects" (Crosby 1988) where, rather than identifying problems when they had occurred, the customer was assured that a certain standard of service would be provided (Parsley and Corrigan 1994). TQM involved organisational commitment at every level to service quality. Clinical governance is discussed below in greater detail.

3.2 Quality: Ontological orientation

Questions have been raised about the nature of reality since the beginning of humankind (Blackburn 1999) and axiomatic positions can range from a belief in the existence of a single reality to the existence of multiple realities (Lincoln and Guba 1985, Monti and Tingen 1999). There is some amount of consensus that differing understandings of service quality pertain according to the group under study (Donabedian 1988, Pffefer and Coote 1991, Øvretveit 1992, Joss and Kogan 1995) and this makes an ontological position of a single reality untenable.

Øvretveit (1992) identifies three dimensions of health service quality: *Client quality* (what clients and carers want from the service); *Professional quality* (whether the service meets needs as defined by professional providers and referrers) and *Management quality* (the most effective and productive use of resources). Joss and Kogan (1995) also use these broad dimensions to categorise issues of service quality and to illustrate differences between groups. Donabedian (1988) contends that before quality can be defined broader principles must be considered, including whether one takes into account only the performance of practitioners or whether the contributions of patients and of the health care system should also be considered. Other principles include how broadly health, and responsibility for health, is defined and lastly,

whether maximally or optimally effective care is sought and, on whose view, that level of care is determined. These issues are now discussed.

3.2.1 Client Quality

Although client satisfaction is used in health service research, its validity as a measure of the quality of care has been called into question (Taylor 1994). Carr-Hill (1992), for example, argues that satisfaction studies are unsuitable for addressing questions of equity because they fail to focus on issues of choice, safety, redress, psychological problems, or outcome. A review of research findings in 1994 (Williams 1994 p509) concluded that satisfaction surveys tend only to "endorse the status quo" of patient compliance and "the belief that complex beliefs can be embodied in simple expressions of satisfaction". This is supported by Batchelor et al. (1994) who, in contesting the validity of the concept client satisfaction, conclude that current measures of satisfaction using questionnaires and scales are more useful for monitoring service provision once agendas are known. Others have found positive correlations between clients' views of quality and age and health status (Cohen 1996) and sense of coherence (Larsson and Larsson 1999), calling into question the reliability of client satisfaction questionnaires.

The usefulness of client satisfaction as a mechanism for understanding service quality is also diminished by the methodological difficulties in carrying out surveys (Wensing et al. 1994, McGee 1998) although McGee suggests they are one way of consulting with clients and improving service delivery. This assertion is challenged by findings from Wensing et al.'s (1994) systematic literature review (n = 40) of quality judgements by patients that concluded "only little progress has been made in the development of patient report as a method for quality assurance" (p45). Others have suggested that satisfaction surveys may even be denying patients an opportunity to be included in the planning and evaluation of services because "satisfaction" may not be grounded in the values and experiences of patients (Avis et al. 1997).

Measurement Instruments

Despite these difficulties there is a substantial literature relating to client satisfaction and there has been considerable development of scales and instruments for use as

well as validity testing in different settings (Norman et al. 1994a, 1994b). These include the Leeds satisfaction questionnaire (Hill 1997), La Monica Patients' Satisfaction with Nursing Care Scale (Gilleard and Reed 1998), Medical Interview Satisfaction Scale (MISS) (Avis et al. 1997), home care client satisfaction instrument (HCCSI) (Westra et al. 1995), and community nursing client satisfaction (Bear and Bowers 1998). None of these has been developed for use with the client group of families with infants under examination in my study. The most commonly used and validated measurement scale, the Servqual Scale, originated in the industrial setting but has been applied to the health services (Parasuraman et al. 1994). Parasuraman et al. (1994) themselves have questioned the reliability of this scale in health care settings because of the lack of commonality between health and other service industries.

Client perceptions of quality of care in public health nursing

Client views are important in public health nursing because the service is not, to any great extent, demand led (Simson 1986). Although none of the following studies used a pre-tested and validated instrument, a number reported on various aspects of client satisfaction. One Irish study with a specific focus on client satisfaction with the public health nursing service (ICHN 1995) is examined in detail later in this review and is not therefore discussed here. A rise in consumerism in the 1980s and 1990s in the UK led to a number of studies that focussed on client dissatisfaction with professionals (Knott and Latter 1999). This is reflected in the availability of literature because, although there are some exceptions (for example, Vehvilainen-Julkunen 1994, Duffy et al. 1998, Earle and Burman 1998), in general, the available literature relates to satisfaction with health visiting services in the UK. It is not clear to what extent the findings of these studies are applicable to the Irish situation, given differences in service organisation.

Studies relating to the health visiting service show some differences. Carter and Bannon (1997) in a postal survey questionnaire to two areas about mothers' attitudes to, and experiences of, pre-school child health services found that HVs were perceived to be helpful. Bowns et al. (2000) in a newly developed, self-completion postal questionnaire (response rate 75%; n = 403) found that a high proportion of

"low risk" women (86%; n = 260) were either fairly or very satisfied with the service they had received for their infants. A lower proportion was satisfied with the care they had received for themselves (73%, n = 219). Suggestions offered for service improvement included appointment system (9.3%), more home visits (6.6%), more support (6.6%) more appropriate advice (4%), more time to talk (3.3%), and antenatal contact (1.7%). The lack of prior validation of the newly developed questionnaire is a limitation of this study and no information is provided for the reader in respect of internal consistency.

Presenting findings from semi-structured interviews with first-time mothers (n = 20), Machen (1996 p352) reported that "in respect of the effectiveness of the service as a whole, very high levels of satisfaction were recorded". Further, all mothers said that the service was needed, and "most" saw the service "as facilitative rather than controlling or directive". Methodological tensions arise in this study in respect of the stated paradigmatic orientation of "interpretive / feminist methodology" (p351) but the use of positivistic terminology in respect of sampling ("by keeping variables to a minimum", "unrepresentative sample"). In addition, the use of (mainly) "short quotes" undermines the author's contention that this study is a descriptive one that would enable transferability. A more recent study does not support Machen's findings in relation to control. Knott and Latter (1999), in an interview study with single unsupported mothers (n = 12), reported that the service was seen as almost exclusively concerned with the baby and some HVs were perceived as being judgmental in their attitudes towards them.

Pearson (1991), using a case-study methodology, demonstrated that clients' perceptions of the service develop over time and she suggests it is necessary for HVs to understand what is valued about the service. Collinson and Cowley (1998) in a qualitative exploratory study of demand for a health visiting service held guided interviews with mothers of pre-school children (n = 9). They report that demand for health visiting relates to clients' knowledge of the service and this, combined with the extent to which the service meets their expectations, influences the value placed on it which, in turn, influences their subsequent use of it. Earle and Burman (1998) in the American context found that most mothers interviewed (n = 21) valued "well-child"

care although a number of barriers - including financial constraints, lack of convenience, unavailability of providers, and lack of knowledge of well-child care schedules - were identified.

A structured interview study of client satisfaction with postnatal care in hospital and at home (up to 12 weeks) carried out in one area in the Republic of Ireland (n = 290; response rate = 86.6%) reported low levels of overall satisfaction (56%) (Murray et al. 2000). Almost half of respondents (45%) described the extent of postnatal services at home as inadequate although 60% (n = 150) of mothers who consulted with PHNs after hospital discharge reported the advice given as "very helpful" and a further 27% (n = 78) reported it as "fairly helpful".

Client satisfaction as a concept and as a measure of the quality of care has been contested. Nevertheless, a considerable body of evidence exists in relation to clients' perceptions and satisfaction with health visiting in the UK and public health nursing services elsewhere, including the Republic of Ireland. Differences identified according to client group may be inter-related with the characteristics of the client group under study.

3.2.2 Professional quality

Professional quality, according to Øvretveit (1992 p4) can be understood as "whether the service meets needs as defined by professional providers and referrers". This approach, as a single mechanism for understanding service quality, has been criticised because of its reliance on traditions and techniques, its inherent paternalism and its inability "to reconcile the often radically different perceptions of providers and the lay public" (Pfeffer and Coote 1991 p9). Various aspects of nurses' perceptions of quality of care have been examined. Hogston (1995) drew on a grounded theory approach using unstructured formal interviews (n = 18 hospital nurses) to examine the everyday methods by which nurses evaluate quality of care. Three categories emerged from the study and these were dialogue and sharing (managerial support, peer support and knowledge sharing), the reflective practitioner (professional judgement, tacit knowledge, reflection, personal satisfaction and personal philosophy), and tools and frameworks (standards, nursing process, audits, feedback

from patients and relatives). The conclusion drawn by Hogston is that evaluation of nursing care in the process of nursing is done in both formal and informal ways and that the infrastructure used by nurses incorporates the inter-linked criteria of structure, process and outcome. Significantly, he concludes, "quality cannot be said to exist if any one of these criteria is absent" (p123) suggesting that a broad all-encompassing view is necessary in any investigation of service quality. This has long been the contention of Donabedian (1968) who developed the structure, process and outcome framework for investigating quality in health services.

Williams (1998) also adopted a grounded theory approach using tape-recorded interviews (n = 10), published literature, and some participant observation to examine the delivery of nursing care quality from the nurses' perspective. A proposed model with four categories emerged, and these were time available (abundant to insufficient), conditions (functional team- dysfunctional), quality of nursing care (exemplary - low quality), and selective focussing (quality focusing - self-focusing). Nurse satisfaction and therapeutic effectiveness are dependent on time and conditions available (Williams 1998). Both Williams and Hogson provide details of the study process. The extent to which the findings can be transferred to other settings, however, is limited because of the small numbers involved in both studies, the volunteer nature of participant sampling, and the lack of sufficient depth of description to provide "vicarious experience" for the reader. Nevertheless, they do highlight the extent to which contextual conditions influence professionals in their understanding of service quality.

Community nurses' perceptions of quality in palliative care have been examined (Austin et al. 2000) using semi-structured interviews (n = 62) and Flanagan's critical incident technique to elicit factors associated with high or poor quality. The nurses identified important components of quality to be early referral of patients, supportive family circumstances, sufficient time to meet more than the physical aspects of care, and the availability of equipment and support services. Study participants were drawn from three localities that made up one community health care trust. In view of the influence of the context on service quality seen here, it would have been helpful for differences between the three localities to be made explicit.

Some authors have taken into account more than one stakeholder group although the extent to which differences between groups were found, differs. Von Essen and Sjödén (1991), for example, found several differences in the importance attached to various aspects of the treatment environment and functioning of care providers, depending on whether the view of client or nurse was examined. These differences were also identified by Cox et al. (1993) in an exploration of views of care provided by the Macmillan nurse (n = patients = 8; carers = 5; district nurses = 5 and general practitioners = 2) where a critical incident technique was used to identify positive and negative themes. Of the twelve themes that emerged in respect of positive aspects of care, only two ("specialist knowledge in the area of terminal cancer care" and "working together and knowledge of available services") emerged with all four stakeholders. Nine themes emerged relating to negative aspects of role but no overlap occurred between any of the stakeholders in respect of these. Not all authors have found differences.

Al-Kandari and Ogundeyin (1998), using an "exploratory" survey research method and a purposive sample (n = 257; nurses = 109; patients = 148), compared perceptions of the quality of nursing care in Kuwait using newly designed questionnaires. Four areas identified were assessment, planning, implementation and accountability / responsibility. Although key findings demonstrated no difference between nurses and clients in terms of how they perceived service quality, the presentation of responsibility and accountability as a single concept is problematic. Others have attempted to incorporate the views of all stakeholder groups (Rantz et al. 1999) by identifying broad dimensions of care. Consumers' and providers' views were integrated around the dimensions of family involvement, communication, environment, staff, care and home. The preceding literature suggests, however, that understandings of service quality can differ in terms of the breadth and scope of issues taken into account as well as when different stakeholders' views are sought. Studies that incorporated HVs' and PHNs' views of service quality are presented later in this review but first, issues of managerial quality are discussed.

3.2.3 Managerial quality

The influence of the corporate sector is evident in "managerial quality" and some equate this understanding of quality with the "excellence" approach concept developed in the United States where the pursuit of quality became a "managerial holy grail" (Pfeffer and Coote 1991 p9). Management quality has been defined as

> the selection and deployment of resources in the most efficient way to meet customer needs, within limits and directives (Øvretveit 1992 p76).

A focus on the deployment of resources has been a source of some discussion in the nursing and health visiting press (Shaw 1997) and it has been suggested that "pre-occupation with cost-effectiveness is in danger of swamping the concern for quality" (Redfern and Norman 1990 p1260).

Others understand the managerial approach to be broader than cost-effectiveness and to embrace the concept of TQM which, according to Parsley and Corrigan (1994 p209) "involves everyone and everything that happens within the organisation, from the part-time cleaners to the chief executive". TQM has been used increasingly in healthcare in the last 10 years and Øvretveit (2000) presents a number of rationales for this. They are increased client expectations, increasing concerns by payers about costs, and higher risks of things going wrong. Joss and Kogan (1995), in a comparison of aspects of the three main "TQM gurus" (Crosby, Demming, Juran) identify a number of common themes. These are

- staff commitment (especially from management)
- The production of a medium and long-term organisation-wide corporate plan
- putting structures in place
- process improvement through a commitment to continuous quality improvement
- costs of quality (and also cost of non-conformance)
- quality of information
- empowering and valuing all staff (through bottom-up approaches)
- focusing on the customer
- training and education
- monitoring and evaluation, and
- achieving a TQM culture.

A failure of many of the conceptual models used in service quality, including TQM, to take account of other theoretical and conceptual approaches (especially in the area of the modelling of processes of organisational change or of organisational development) has been criticised (Joss and Kogan 1995). These authors are particularly critical of Crosby who, while exhorting a philosophy of zero defects and the application of simple problem-solving tools to achieve this, fails to provide any direction on how such change might be secured in organisations. Quality and the quality agenda, it has been suggested, developed in isolation from the context within which it is practised and this led to difficulties in the implementation of TQM as well as problems relating to poor and unsafe practices (Scally and Donaldson 1998, Smith and Harris 1999, Beecham 2000, Dyer 2000). Increasingly, issues related to change within complex organisations (Plesk and Greenhalgh 2001) and the need for organisational learning (Senge 1994), and knowledgeable organisations (Morley et al. 1998, Jaros and Dostal 1999) are being raised in the health service quality literature. In the UK, the convergence of an organisational literature with that of service quality, as well as an explicit acknowledgement of the importance of providing safe systems with a multi-dimensional focus, has resulted in the introduction of clinical governance (Houston et al. 2001).

Clinical governance

'Doing the right thing, for the right person at the right time and getting it right first time, every time' has been presented as the conceptual underpinning of clinical governance (Donaldson and Muir Gray 1998 p28). Clinical governance has a number of components, which focus on the creation of systems, to ensure safe and effective clinical practice (Huntington 2000, Pringle 2000) as well as individual accountability (Allen 2000). System level components include

- evidence-based practice through the creation of opportunities for staff to undertake professional development (Scally and Donaldson 1998)
- continuous quality improvement (Baker et al. 1999)

- cohesion, integration and co-operation at a system level (Malcolm and Mays 1999) and cultural change through the development of technical skills, structural skills and effective leadership (Cambell and Proctor 1999, Huntington 2000).

Clinical governance has been defined as:

> A framework through which NHS organisations are accountable for continuously monitoring the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish (Department of Health (DH) 1998 p30).

Scally and Donaldson (1998) also use the definition of clinical governance identified above with two small, but nonetheless significant, differences. The first difference replaces "framework" with "systems" and the second replaces "monitoring" with "improving". These two differences are important because they suggest contrasting operating assumptions. In the DH definition there is a focus on providing a framework for monitoring the quality of care while in the second, Scally and Donaldson identify the importance of providing a system to support continuous improvement. A dichotomy between measurement and quality is evident in the literature on quality. For some, service quality means a focus on the organisation, the system, the structure and the key stakeholders within that context. For others, the focus is on the attainment of "objective" measures (for example, audit, performance indicators) and of how the individual performs. The DoHC (2001a p19) in the Republic of Ireland have recently identified a need to understand service quality within context and there is a commitment to

> embed quality more deliberately into the health system through comprehensive and co-ordinated national and local programmes.

Internal customer

The concept of "internal customer", as described by Juran and Gryna (1988) can be useful in understanding the role of management within the context of service quality and, in particular, within clinical governance. "Internal customers" are the recipients of products or services within the organisation while "external customers" include clients who are not members of the organisation (for example, government regulatory bodies, the public) (Juran and Gryna 1988). We can understand the public health nursing service to be an internal client of the health board. It follows from this, that a

role for management is to ensure that this service has the necessary "products" to ensure it can provide a "quality" service to families with infants. Although little research on the public health nursing service has been undertaken in the Republic of Ireland, some criticisms have been made of the lack of support systems. These include the poor structural state of some health centres (O'Neill 1990, DoH 1994), a lack of in-service training for PHNs and area medical officers (Denyer et al. 2000), an absence of other professionals working in community settings (Kelly 1995, INO 1996, Hanafin 1998), and a lack of structural mechanisms to facilitate referral, feedback, and working relationships between various disciplines involved in child health work (Hayes et al. 1992, CoF 1998, CoN 1998, Denyer et al. 2000).

In a UK study, discussed in detail later, Macleod Clark et al. (1997) identified a number of organisational pre-requisites for the provision of a health promotion service for nurses working in primary care. These were

- an explicit health promotion strategy for all members of the multi-disciplinary team
- explicit and specific health gain goals
- corporate commitment to working in partnership with clients and communities
- teams with appropriate skill mix and an integrated multi-disciplinary team that works in partnership
- profile of population health needs, performance management and evaluation strategy based on assessment of quality, and
- adequate investment in practice development and an appropriate environment.

In summary, difficulties in introducing TQM, coupled with a realisation that patient safety has been and continues to be compromised by poor systems, has placed a clear focus on the broader environment of health care as well as on the individual client or professional group within the system. These are not new concepts within the literature although the weighting of any given element has varied over time. Donabedian, as far back as 1966 wrote of the need to include the context within which people work in any evaluation of service quality.

The preceding literature review has demonstrated that between and within different stakeholder groups, different understandings of service quality occur. An ontological position underpinned by a commitment to a single reality is clearly untenable in such circumstances and any investigation of service quality must, therefore, include multiple perspectives. In this study, the three key stakeholder views that will be included are those of clients, managers and PHNs. A question of whether there is one or many realities is closely related to the way in which these realities are known. Those committed to the existence of a single reality are more likely to subscribe to an epistemological position that knowledge can be objectified and that the knower can be separate from what is known. Consequently, ontology and epistemology are closely linked and epistemological issues about service quality are now presented.

3.3 Quality: Epistemology

Phrases commonly associated with service quality such as "What gets measured gets done"; "If you can't measure it, it's not quality" and "If something cannot be measured, it cannot be improved" raise epistemological questions. An epistemological position that suggests something is real only if it can be objectified is at odds with those who believe there is a subjective element to service quality. The subjective-objective (mind-body) debate has taxed philosophers since Descartes and on-going discussion and debate continues in this area (Nagle 1979, Blackburn 1999, Ridley 2001). In a comparison of the positivist and naturalist paradigms, Lincoln and Guba (1985) write that in the former, there is a dualism where knower and known are independent, while, in the latter knower and known are interactive and inseparable.

A positivist paradigm assumes observations can be value-free and that cognition and perception are separate entities. In contrast, the naturalist paradigm assumes that knowledge derived from observation is value-laden and that cognition, perception and experience affect what is seen or conceptualised (Monti and Tingen 1999). Two epistemological debates have emerged in respect of service quality, one that has a focus on *how* service quality can be known and the other on *what* can be known.

3.3.1 How can service quality be known?

Discussion of service quality in the health care sector has focused on ways in which measurement can take place. A number of authors have presented composite literature reviews on the effectiveness and impact of community health nursing (for example, Combs-Orme et al. 1985, Barriball and Mackenzie 1993, Deal 1994, Goodwin 1994, Campbell et al. 1995). The most recent of these has been a large-scale systematic review of literature relating to the effectiveness of domiciliary health visiting that included previous reviews of the literature (n = 6) and individual studies (n = 102) (Elkan et al. 2000). The authors draw attention to challenges involved in evaluating the work of HVs and PHNs and these are now discussed.

Two broad categories of measurement have been proposed and these are process measurement and outcome measurement. Although outcome measurement is seen by some as the only valid way of understanding public health nurses' work, a number of authors have called for process measurement (Bond and Thomas 1991, Hall 1996, Macleod Clark et al. 1997). Indeed, it has been suggested that both paediatric care (Schuster et al. 1997) and nursing (Bond and Thomas 1991) are particularly well suited to process as well as outcome measures. Macleod Clark et al. (1997 p18) write that

> measures of quality and effectiveness need to be located in a shorter time frame and in the context of the process of the interaction.

Outcome measurement has been the dominant paradigm in relation to service quality and several typologies have been developed. The UK Clearing House for Information on the Assessment of Health Outcomes (1993) identifies

- *health outcomes* (the effects on health of any type of process including broad areas such as housing, education, employment etc.)
- *health service outcomes* (the effects of health services on individuals, groups or communities and include patient satisfaction), and
- *implied outcome measures* (where indirect measurements can be used as a proxy for favourable outcome e.g. immunisation coverage and coverage of a screening programme of proven value).

Others write that outcomes can be categorised as broad or specific (Dorman-Merek 1989), patient or provider (Mowinski Jennings et al. 1999). Byrd (1995) uses a client and environmental approach (maternal, family and environmental) to present a typology of outcomes, although Alexander and Kropski (1999) found a similar approach unhelpful in presenting outcomes from public health nursing work.

Donabedian (1988 p1745) defines an outcome of care as

> not simply a measure of health, well-being or any other state but rather, a change in status confidently attributable to antecedent care.

Although some authors subscribe fully to this definition (Lohr 1988), others suggest that the predetermination of change as well as a change in status may not be necessary (Bond and Thomas 1991). A number of concerns arising from the use of outcomes as measures of service quality in public health nursing have been identified in the literature. These are

- whether an outcome is reflective of some change that takes place
- whether a change which takes place can and should only be considered an outcome if it can be attributed to a particular intervention
- whether the outcome has been predetermined, and
- political and other issues.

A key focus of public health nurses' work with families can be understood to be preventive, a concept that has proven very difficult to measure (Barriball and Mackenzie 1993, Campbell et al. 1995, Hall 1996, Macleod Clark et al. 1997). Where a change in knowledge, attitude or behaviour is expected, problems also arise. Factors influencing changes in behaviour have been identified as multi-factorial and, further, changes generally take place over a long period of time (Dines and Cribb 1993, Naidoo and Wills 1994, Tones and Tilford 1994). In these situations, questions arise in respect of longitudinality, attribution and valid outcome measures.

Attribution is considered by a number of authors to be a core element in the measurement of quality outcomes (Donabedian 1988, Redfern and Norman 1990, Schuster et al. 1997). The multidimensional nature of the intervention in health

visiting means however, that "outcomes are not predictable, and the lines of attribution are unclear" (Campbell et al. 1995 p30). Substantial challenges are posed in determining a cause-effect relationship and indeed the work of epidemiologists is almost exclusively focused on this area (Mausner and Kramer 1985, Hennekens and Buring 1987). In an epidemiological context, it is assumed that unless the principles of Koch's postulates (strength of the association, dose-response, consistency of the association, temporally correct association, specificity of the association, and biological plausibility) can be satisfied, a relationship should not be considered cause-and-effect (Mausner and Kramer 1985). Even where only a single disease with a single intervention is under scrutiny, a considerable body of research is required to establish indicators for all of these postulates.

In the hierarchy of epidemiological research, randomised controlled trials (RCTs) have been identified as the "gold standard". A systematic review of the effectiveness of domiciliary health visiting for parents and young children as well as elderly people and their carers identified 102 papers evaluating 86 home visiting programmes (Elkan et al. 2000). Articles were included in the review if, among other criteria, the study included a comparison group. The review includes mainly RCTs and according to the authors "many of the process issues of concern were excluded from the review" (p229). Studies using an RCT methodology have been applied to both child health (Schuster et. al. 1997) and PHN interventions (Olds et al. 1986a, 1986b, 1998, Jones-Jessop and Stein 1991, Schuster et al. 1997). Olds et al. (1986a) report that their home visiting intervention involved nine visits during pregnancy and at least thirty-three visits between birth of the infant and two years (if a crisis arose, additional visits were made). Each visit lasted more than one hour. This level of intervention is far greater than that of the Irish situation where there are only seven scheduled contacts in the first two years of life (Denyer et al. 2000). Further, the complexity of the process of public health nursing and the methodological impossibility of randomisation of such activities as "fringe work" (de la Cuesta 1993) limit the usefulness of RCTs in the real world context. Consequently, although the findings from RCTs suggest that health visiting / public health nursing can be effective, the controlled nature of this methodology means that external validity is poor and generalisability limited (Donabedian 1988, Starfield 1991).

Predetermination of outcomes is also a key element of outcome identification. In the UK situation, health-visiting practice has been underpinned by four principles and these are (1) the search for health needs, (2) stimulation of an awareness of health needs, (3) the influence of policies on health, and (4) the facilitation of health-enhancing activities (CETHV 1977). The search for, and stimulation of, awareness of health needs means that the specific pre-determination of outcome is not possible. There is a paradigmatic gulf between a need for pre-determined outcomes and an understanding of the service as one premised on the shared establishment of 'need', (i.e. shared by PHNs and clients). Although little is known of the Irish public health nursing service in this respect, it may be similar to that of the UK situation.

Other problems have also been associated with outcome measurement. It has been suggested that the art of collecting data is not neutral and that, further, it exerts an influence on the activity it is intended to reflect (Cowley 1994). Whitehead (1993) raises concerns about the possibility that health authorities are interpreting health gain in a way that discriminates in favour of those for whom such gain can be easily achieved. Others have questioned the usefulness of Körner-style audits in the UK (Jacoby 1990, Macleod Clark et al. 1997) and even where such measures are available their relevance appears to be limited. Public disclosure of information about the quality of health care in the United States has not, according to Schneider and Lieberman (2001) made a significant difference to the client. They suggest the following reasons

- limited salience of objective measures to consumers
- the complexity of the task of interpretation, and
- insufficient use of quality results by organised purchasers to inform contracting and pricing decisions.

There are substantial difficulties in understanding public health nursing service quality through outcome measurement, particularly in respect of the need for change to take place, attribution and pre-determined outcomes. Other difficulties have also been identified including the influence of such measures on the care provided and the potential lack of relevance to users.

3.3.2 Process measures

Process measures are also problematic. Process has been defined as

> what is actually done in giving and receiving care. It includes the patient's activities in seeking care and carrying it out, as well as the practitioner's activities in making a diagnosis and recommending or implementing treatment (Donabedian 1988 p1745).

Many of the processes of the work of the PHN remain unexposed, unarticulated and unexplained. A literature is developing in this area although, with a small number of exceptions (for example, Byrd 1997, 1998, Paavilainen and Åstedt-Kurki 1997), it is drawn mainly from the UK health-visiting context (Luker and Chalmers 1989, Cowley 1991, 1995a, 1995b, 1999, Chalmers 1992, 1993, 1994, de la Cuesta 1993, 1994, Macleod Clark et al. 1997, Knott and Latter 1999). This literature demonstrates that the process of health visiting / public health nursing work is complex and multi-faceted and has many elements that are not immediately explicit. Cowley (1991) identifies a symbolic awareness context that surrounds and influences interactions between health visitors and clients in a grounded theory study of practising health visitors using interviews (n = 4 individual; 20 small groups), non-participant observation, and discussions.

She writes

> It has often seemed difficult for health visitors to explain and articulate the deep processes buried within their work; considerable interpersonal skill and receptivity seem to be needed to negotiate the complexities embedded in the process of 'stimulating an awareness of health needs'. Highly developed professional expertise and non-verbal knowledge may be internalized, thus become 'invisible', being recognized only as 'intuition'. (Cowley 1991 p655).

In a later presentation of data on how health visitors choose which approach to use in any particular situation, Cowley (1995a) reveals an approach to health promotion

> which requires a highly developed ability to cope in a safe and therapeutic way with shifting, uncertain and ill-defined health needs, and to recognise and respond to complex, potentially risk-filled situations (Cowley 1995a p276).

A further example of the exposition, articulation and explanation of the processes of the PHN's work is available in Chalmers' (1993) study that describes and analyses HVs' work in searching for health needs and promoting clients' awareness and actions in response to professionally identified needs. The findings from semi-structured conversational interviews with HVs (n = 45) identified that searching for health needs occurred in the following types of situations: "client initiated"; "easily

seen"; "opened up" (by the health visitor); and "suspected and hidden". Several processes were involved in searching for health needs. These included questioning, using illustrations from other client situations, and responding to cues. Other aspects of health visiting have also been examined. Luker and Chalmers (1989) explored the concept of referral as it related to HV practice and identified different aspects of the work including, "working up" the client, "working up" the agency, third-party referrals, and issues of control and outcome.

HVs and PHNs identify the PHN-client relationship as an important element of their work. Paavilainen and Åstedt-Kurki (1997) focussed on this aspect of the work of PHNs in Finland in a phenomenological-hermeneutic study where data were collected through essays (n = 11) from PHNs and followed by theme interviews (n = 9). They describe a developmental process where trust leads to friendly and confidential relationships that lead to common actions, experience of togetherness and to clients' wellbeing and the ability to cope as the common goal. Client (individual and family needs, resources, life situation, individual ways of feeling well) and PHN (knowledge, abilities, use of knowledge, true presence and practicalness) "person expertise" are identified as preconditions of the collaboration between a client and a nurse. The complexity and importance of the relationship are also noted by others (Cowley 1991, Pearson 1991, de la Cuesta 1994). de la Cuesta reported that the relationship in health visiting enables health visitors to know the client, gain and maintain access, and produce reciprocity while Donabedian (1993) asserted that, in the interactions between clients and practitioners, critical elements of quality occur.

In general, processes of health visiting and public health nursing have been described in terms of the interaction that takes place between PHN and client although Byrd (1997, 1998) is an exception to this. Byrd (1998), in an investigation of public health nursing in the American context, identified a long-term "pattern" of public health nursing relating to children with special needs. This pattern included responding and scheduling; entering the home; starting with the mother's expressed concern; supporting and validating; caregiving, ending the visit; and after the visit.

The complexity of the processes outlined above where the starting point is the client's life situation and life experiences (Paavilainen and Åstedt-Kurki 1997) and "where any one question, purpose or topic selected by the health visitor or client as a specific focus, forms only a relatively small component part of the whole" (Cowley 1991 p648) makes it difficult to see how the quality of this work can be measured. In the acute care sector, retrospective (for example, Phaneuf Nursing Audit) and concurrent (for example, QualPacs) instruments for measuring the process of care have been developed. The low correlation found between the two tools identified above (Ventura 1980, Sparrow and Robinson 1991) as well as with others (for example, Kitson's Therapeutic Nursing Function Matrix - (TNFM), Norman et al. 1994a, 1994b) raises questions about the validity of these as an approach to understanding service quality.

3.3.3 What can be known

Many nursing researchers became frustrated with the positivist approach because it did not reflect "the beliefs of nursing nor the discipline's focus on holism, person-centred care, and understanding of human experience" (Monti and Tingen 1999 p70). Such criticisms have also been made about service quality. Donabedian (1988 p1744), for example, cautions that the demand for measures that are "easy, precise and complete as if a sack of potatoes was being weighed" by those who have not experienced the intricacies of clinical practice, is problematic. Robinson (1998 p92) also draws attention to this and writes that

> contemporary research methods used in the evaluation of interventions and outcomes in health visiting lead to particular forms of knowledge construction and interpretation involving the deconstruction of health care inputs and outcomes into ever-smaller component parts.

Frameworks for examining quality have been proposed. Probably, the most referenced one is that of Donabedian's structure, process, outcome (SPO). It has been used in the setting of standards of nursing care (Maycock 1989, Barker 1991, Parsley and Corrigan 1994), ethical principles and healthcare quality (Huycke and All 2000), the identification of medical outcomes (Tarlov et. al. 1989), organisational effectiveness (Mark et al. 1997), the assessment of palliative day care (Douglas et al. 2000), evaluation of discharge planning (Closs and Tierney 1993), primary health care setting (Coyle 2000), and auditing nursing care (Clarke et al. 1998). Others have

used Donabedian's SPO as the basis for the development of their own models (Holzemer 1994, Attree 1996, Mitchell et al. 1998).

Others have also presented models. Haywood-Farmer (1987) identifies a conceptual model that includes a three-point dimensional classification scheme incorporating professional judgement, physical process and people's behaviour. Øvretveit (1992) identifies an eight-point flow-process model for understanding service quality from a client perspective. This model has 8 components: selection, entry, first contact, assessment, intervention, review, closure and follow-up and focuses on the clients' interaction with the service. Martin-Hirsch and Wright (1998) identified a model for measuring effective midwifery services (MEMS) that took account of tangible and intangible aspects of the service. This model built on the client satisfaction literature where the gap between expectations and perceptions forms the basis for the judgement of quality.

3.3.4 Dimensions

The model used to frame any examination of service quality influences the dimensions included. Maxwell (1984) identified seven dimensions to be considered in any assessment of service quality and his central argument was, similar to that of Donabedian, that quality in the health services cannot be measured in a single dimension. The dimensions identified by Maxwell are

- access to services
- relevance to need (for the whole community)
- effectiveness (for individual patients)
- equity (fairness)
- social acceptability and
- efficiency and economy.

Others have also identified these and other areas for measurement. Donabedian (1990) identifies seven "pillars" of quality including efficacy, effectiveness, efficiency, optimality, acceptability, legitimacy, and equity.

Any one of these dimensions, however, can form the body of investigation for an entire discipline. Health economics, for example, deals with the subject of efficiency (Drummond et al. 1988); philosophy with ethics (Nagle 1979, Folger and Cropanzano 1998); sociology with social acceptability (Wensing et al. 1994); and epidemiology with relevance to need as well as effectiveness (Mausner and Kramer 1985, Hennekens and Buring 1987). It is not possible therefore, for one study to incorporate a comprehensive investigation of each one of these dimensions. In addition, dimensions can be in competition with each other. Equity may be forfeited in a situation where cost-effectiveness is to the fore and cost-effectiveness forfeited in a situation where equity is to the fore (Vågerö 1994).

3.4 Summary

In summary, the literature on service quality has been examined and has been found to be inconclusive with regard to the identification of a clear path forward. In tracing the evolution of health service quality from the industrial sector, issues around ontology and epistemology have been raised. The importance of taking account of multiple perspectives has been identified and in particular, three key stakeholders have been identified. They are managers, PHNs and clients. Finally, epistemological concerns arising from process and outcome measurement and the implications of each for understanding service quality in the public health nursing service were identified. These issues provide the basis for the key aim of this study of developing a model to enable quality in the public health nursing service to families with infants to be understood in a holistic way. This model will be derived from a description of the public health nursing service and from an understanding of how multiple stakeholders construct service quality. These two areas coupled together will facilitate a holistic understanding. An appropriate methodology for doing this has not clearly emerged from the literature on public health nursing or service quality and the findings from a systematic mini-review of the literature are now considered with a view to identifying such a methodology.

Chapter 4: Mini-review of key studies

This study started at a time when the need for a systematic review of literature was less evident than it is now (Sackett et al. 2000, Greenhalgh 2001) and consequently, an initial literature review conducted between 1998 and 1999 did not meet all the criteria laid down. The aim of the study emerging from the initial literature review has guided a mini-review of key studies presented below. A mini-review of the literature follows the same basic format as a full systematic review in having a clearly focussed question, in being explicit about the characteristics of studies, and in providing enough detail for others to undertake the review. In contrast with a full review where many outcomes or comparisons may be made, a mini-review typically addresses a single question with just one or two outcomes considered (Griffiths 2002). A standard protocol comprising four steps has been identified for the mini-review (Griffiths 2002) and these are, asking the question; identifying the key search terms; developing the strategy; and synthesising the literature.

4.1 The question

In this study, the question being asked is

> how can quality in the public health nursing service to families with infants be understood in a way that takes account of the complexity of the organisation within which the service operates and, that takes account of the views of multiple stakeholders?

Four components, population, intervention, comparison and outcome are generally used to define the question (Sackett et al. 2000). This study does not lend itself to the identification of a comparison group because the question is an epistemological one of how can service quality be understood rather than one of whether service quality is different or better in one service than another. The focus of the question is on the overall service quality rather than on any one aspect and, for that reason, the section titled "outcome" was divided into two separate parts (service and quality) which were then combined using the Boolean operator "and". The population is identified as *families with infants less than one year*, the intervention as *the public health nursing service*, and the outcome, *service quality*

4.2 Identification of the search terms

The search undertaken aimed to achieve sensitivity of the literature because all research literature relating to public health nursing and service quality had the potential to be relevant. The facet analysis was developed by using commonly used terms in the literature for each of the three areas, public health nursing, service quality, and families with infants as well as relevant words from Roget's Thesaurus of English and the Oxford English dictionary (Thompson 1995). An initial facet analysis, search strategy and sensitive search of Cinahl (1980-present), EMBASE (1980-present) and MEDLINE (1966-present) identified some 477 articles. This led to a number of changes and a refined facet analysis that excluded terms from each section, population (e.g. "neonate"), intervention ("home nursing", "home care nursing"), and outcome ("total quality management", "continuous quality improvement") and included new terms (e.g. well baby, health promotion) identified 378 articles. The final facet analysis is presented below in Table 4.1.

Table 4.1: Facet Analysis

Population	Intervention	Outcome	
Families with infants	Public health nursing	Service	Quality
Infants	Child health nursing	Programme	Effectiveness
Baby	Community nursing	Service	Efficiency
Fathers	Health visiting	Structure	Quality assurance
Mothers	Well baby	Delivery	Quality
Family	Health promotion	Provision	Satisfaction
Less than one year	Public health nurse	Utilisation	Outcomes
Parent	Child health nurse	Operation	Quality measurement
Aged one year	Community nurse		Service quality
			Value for money
			Evaluation

4.3 Developing the strategy

The Cochrane library, Medline (1966-present), Cumulative Index to Nursing and Allied Health literature (Cinahl) (1984-present) and EMBASE 1980-present) databases were each searched individually. MESH headings, where available, were

used. An adjacency operator (Age$ adj3 one) was used to ensure that "age" was separated from one year by no more than three words so focussing the scope of the search (Greenhalgh 2001). Free text searching using truncation (e.g. Mother$), and optional wild cards (e.g.Community? Nurs$) were used in the CINAHL, MEDLINE and EMBASE databases. Hand searching of the following journals, Public Health Nursing (1996-2000), Health Visitor (1996-1997, when its name changed to) Community Practitioner (1998-2000), World of Irish Nursing (1980-2000) and Nursing Review (Irish) (1992-2000) took place. A search of the "grey" literature was also undertaken using both Irish and UK libraries and also by contacting the Department of Health, various health boards and professional organisations in Ireland. A systematic review of domiciliary visiting by Elkan et al. (2000) was identified through the NCCHTA web-site following a search through google.com using "service quality", "health visiting and service quality", "public health nursing". This study was subsequently excluded from the review because the main foci are on domiciliary visiting and RCTs.

4.3.1 Inclusion and exclusion criteria

- All research-based studies, irrespective of methodology, were considered eligible for inclusion in the review.
- All studies where the main focus was on the overall public health nursing service to families with infants were considered eligible.
- All studies where the main focus was on service quality were considered eligible.

The final searches undertaken on 26th May 2002 were limited to research articles and also limited to articles written in the English language. The exclusion of articles written in a language other than English is acknowledged here as a limitation of this search but time and resource limitations meant that translation facilities were unavailable. The above strategy yielded 378 articles of which 21 were not in the English language and a further eight were not research based. Greenhalgh (2001, p201) notes that manual indexers are fallible and misclassifications are common. For that reason, all 349 remaining abstracts were read. Table 4.2 identifies the exclusion criteria that were then applied to abstracts.

Table 4.2 : Exclusion criteria

Number	Exclusion criteria	Number excluded
1	Predominantly focussed on hospital / in-patient care	21
2	Focussed on specific component of care (e.g. immunisation uptake / single intervention)	32
3	Focus on intervention service for children with special / complex needs (e.g. asthma, child protection)	180
4	Focus on family characteristics (e.g. teenagers / older mothers, single parents)	40
5	Focussed on pregnancy / immediate post-natal period	20
6	Focussed on specific aspect of service delivery (e.g. growth charts, scales)	9
7	Focussed on epidemiology of disease	2
9	Nursing not the main focus	10
10	Families with infants not the main focus	5
	Total excluded	319

The remaining thirty articles were read and two criteria laid down for the final selection of studies. First, that the study should either incorporate the perceptions of more than one stakeholder and/ or take account of the "natural" setting of public health nursing work with families with infants. Studies that incorporated either one or both of these criteria were identified (n = 5). One study that did not meet this criterion (ICHN 1995) was also included because it is the only Irish-based study to examine any aspect of service quality in the public health nursing service. Supplementary data in respect of one study (Twinn and Shiu 1996) is provided by a second report of that study (Twinn 1997), already known to me. Key details relating to these studies are summarised in Table 4.3

Table 4.3: Key features of studies reviewed

No	Authors	Methodology	Data sources	Data types	Service quality understood in terms of
1	Clark MJ., Conway M. and Hudson N. (1986)	Observational study	Nurses and clients	Non-participant observation of activities	Productive use of PHN time in context
2	Twinn S. and Shiu A. (1996)	Case study	Nurses, clients, client records	Nursing records, interviews	Ability of PHN to meet maternal and child health needs
3	Jansson A., Isacsson Å., Kornfält R. and Lindholm LH (1998)	Survey	Nurses / clients	Questionnaires	Client and PHN views of service quality
4	Worth A. and Hogg R. (2000)	Qualitative using interviews	Health visitors clients	Focus group interviews	Client and health visitor views of value of service in context of social change
5	Macleod Clark J, Francks H, Maben J, Latter S. (1997)	Case study	Purchasers, providers and clients	Non-participant observation, interviews	Nursing practice in context
6	Institute of Community Health Nursing (ICHN) (1995)	Structured interviews	Clients	Structured interviews	Client satisfaction

4.4 Synthesis of literature

Methods used ranged from questionnaire survey (Jansson et al. 1998) to more qualitative approaches including non-participant observation (Clark et al. 1986), structured (ICHN 1995) and unstructured interviews (Worth and Hogg 2000) as well as case studies (Twinn and Shiu 1996, Macleod Clark et al. 1997). Critiquing and synthesising studies with such diverse philosophical and methodological bases is problematic because of the need to take account of the varying ways in which the quality of any individual piece of research can be judged. In addition, there is some disagreement among qualitative researchers about what, if any, criteria can be applied in the evaluation of qualitative studies (Cutcliffe and McKenna 1999). Nevertheless, a systematic approach is necessary in order to synthesise the literature so that

comparisons around validity and reliability in quantitative studies (Bryman and Burgess 1994) and credibility, transferability, dependability and confirmability of qualitative studies can be made (Lincoln and Guba 1985).

Different authors have developed criteria for the evaluation of qualitative research. Some focus on qualitative research in general (Mays and Pope 2000, Greenhalgh 2001) and others on the approach (e.g., case study (Kean and Packwood 1995)) or particular method used (e.g., open-ended interview (Silverman 1998)). A set of guiding questions, proposed by Greenhalgh (2001) allow for comparison between and within studies by enabling the reviewer to take account of the important aspects of quantitative as well as qualitative research. These questions are used to guide the synthesis of literature.

4.4.1 Study questions

Some researchers set out to "examine", "assess" or "explore" the views / perceptions of stakeholders (ICHN 1995, Twinn and Shiu 1996, Jansson et al. 1998, Worth and Hogg 2000). Others aimed to examine service quality in the context of the "organisational and structural factors which facilitate or inhibit quality in practice" (Macleod Clark et al. 1997 p22) and the "constraints of the setting" (Clark et al. 1986 p89). Both Macleod Clark et al. (1997) and Twinn and Shiu (1996) were also concerned with an epistemological issue of "indicators" and "instruments" for the assessment of service quality. In the case of Macleod Clark et al. (1997) the focus was on testing and refining indicators of quality identified in a previous study while Twinn and Shiu (1996) were at an earlier stage of seeking to generate indicators. One further aim emerging in the studies related to outcomes of public health nursing / health visiting interventions. Macleod Clark et al. (1997) sought to do this by establishing relationships between quality in the process of primary health care and subsequent health gains and benefits, while Twinn and Shiu (1996) sought to determine the extent to which the services meet the health needs of women and young children.

4.4.2 Selection of setting and subjects

Resources and time available to the researcher often determine the selection of both setting and subjects. The geographic scope of studies ranged from a city in Scotland (Worth and Hogg 2000) and the United States (Clark et al. 1986) to four NHS trusts (Macleod Clark et al. 1997), to the entire country of Sweden (Jansson et al. 1998), Hong Kong (Twinn and Shiu 1998), and the Republic of Ireland (ICHN 1995). Settings about which data were collected included clinics (Clark et al. 1986, Twinn and Shiu 1996, Macleod Clark et al. 1997, Jansson 1998) and home (ICHN 1995, Twinn and Shiu 1996, Jansson 1998, Macleod Clark et al. 1997, Worth and Hogg 2000) although only Macleod Clark et al. (1997) and Worth and Hogg (2000) used the home as a setting for data collection.

Random selection of mothers (n = 676; response rate 80%) in Jansson et al.'s (1998) study is a considerable strength of the study (Barriball and While 1999). The sampling frame ("healthcare clinics") used for the selection of nurses was less satisfactory but this commonly takes place in the absence of an accurate and accessible register. The sampling strategy used by the ICHN (1995) was very problematic and may undermine the credibility of the study. Some (but not all) PHNs who were members of the ICHN agreed to take part in the study and these PHNs "interviewed" mothers (n = 387) with whom they were in contact about their satisfaction and general assessment of the public health nursing service. Two problems arise here. Firstly, the lack of equal opportunity for each participant to be included (Polit and Hungler 1989) and secondly, there is a strong likelihood that clients were restricted in their responses and that they may have engaged in "reciprocity" during the structured interviews (Hitchcock and Hughes 1995). Such convenience sampling has been identified by Robson (1993 p141) as "a cheap and dirty way of doing a sample survey (which)... does not produce representative findings".

Twinn and Shiu (1996) selected case study sites (maternal and child health centre; n = 4) on the basis of their location within each of the four health regions of Hong Kong to allow for "a range of socio-economic groups and social structures" (p445). Within the cases, three different sampling techniques were used and these were systematic

sampling (of nursing records and non-attenders at the clinics), purposive sampling (clients (n = 32) and nurses (n = 16) at each centre for interview) and census (of all nurses working at each of the four sites (n = 42). Although the sampling techniques outlined above are acceptable, there is a lack of clarity in respect of what constitutes "the case". In one report, a stated objective of the study was "to establish the extent to which the *services* meet the health needs of women and young children" (my italics) (Twinn and Shiu 1996). In a second report of the study (Twinn 1997) the first objective is identified as "to establish the extent to which the *centres* meet the health needs of women and young children" (my italics). This lack of clarity is a limitation that may have negatively influenced collection, analysis and interpretation of data. It compares unfavourably with Macleod Clark et al.'s (1997) case study where the "case" is clearly defined as "nursing practice".

Clark et al. (1986) collected data from nurse-client interactions (n = 165) at five different clinic sites where well-child clinics were held. The authors, while noting that "the conditions in these clinics were somewhat different from those in similar clinics across the country" (p89), do not provide any information about how or why these sites were chosen or, indeed, the ways in which these clinic sites differed from others. Limited information is provided about nurses (n = 11 "experienced" and 3 "inexperienced" nurses) and clients (n =165; age 0 - 49 months; 50% medicaid recipients 50%) in terms of their characteristics and none at all about their selection. These are considered here as limitations of the study. The final study, that of Worth and Hogg (2000), also presents with limitations. Participants in small focus group client interviews (3 - 5 participants, n = 25 parents with a child aged three years or less) "were recruited via three playgroups which were selected to provide a range of socio-economic circumstances" (p122). The author notes that participants knew each other and Reed and Roskell (1997) say it is important to take this into account when facilitating the group and analysing the data. This does not appear to have been done. No information is provided about the selection of HVs (n = 6; 24 participants) or the 18 mothers of first-born children selected for individual in-depth interview.

In summary, statistical sampling took place in one study only (Jansson et al. 1998) although the potential for sampling in this way was also present in the studies

undertaken by Clark et al. (1986), the ICHN (1995) and by Twinn and Shiu (1996) for their questionnaire survey. The sampling techniques used by both Clark et al. (1986) and the ICHN (1995) are flawed and it is likely that these problems undermine the extent to which the results from these studies can be interpreted and generalised.

4.4.3 Researcher's perspective

Although it is unusual for a researcher's perspective to be taken into account when carrying out or reporting a study underpinned by positivistic approach, this is a common feature of studies underpinned by more naturalistic enquiry (Lincoln and Guba 1985). Only one study (Worth and Hogg 2000) made explicit the researchers' background and no other information was presented. In Worth and Hogg's study one researcher "was an experienced health visitor" and, as this person carried out all the interviews, it is likely that this had some impact on data collection.

Other issues emerging in relation to researchers' perspectives are particularly pertinent where there are multiple researchers and where the capacity to be reflexive and flexible are of key importance (Olesen et al. 1994, Bryman and Burgess 1994). The influence of researchers' epistemological, ontological and methodological assumptions are of key importance when drawing on different data sources and there is a need to make these explicit at the time as well as in the reporting (Leininger 1994).

Four studies included in this review (Twinn and Shiu 1996, Macleod Clark et al. 1997, Jansson et al. 1998, Worth and Hogg 2000) drew data from more than one source and/or used more than one type of data. Two studies used triangulation as a mechanism for drawing data together (Twinn and Shiu 1996, Macleod Clark et al. 1997) while the remaining two presented data separately for some questions (Jansson 1998, Worth and Hogg 2000) and compared findings for others (Jansson et al. 1998). Each type of data is underpinned by different philosophical understandings and a lack of discussion around these in any of the studies undertaken may have limited interpretation.

4.4.4 Collection of data and description of same

Each study focussed on different aspects of the public health nursing (health visiting) service and data were collected using a range of different techniques. These included

- observation techniques (Clark et al. 1986, Macleod Clark et al. 1997)
- pre-tested (Jansson et. al 1998) and non-pre-tested (Twinn and Shiu 1996) questionnaires
- structured (ICHN 1995), semi-structured (Twinn and Shiu 1998, Worth and Hogg 2000), focus group (ICHN 1995, Worth and Hogg 2000), and other interviews (Macleod Clark et al. 1997), and
- nursing records (Twinn and Shiu 1996).

Each of these types of data collection have developed protocols for use, and failure to adhere to these protocols can limit the credibility of the study. Where instruments are used, issues of reliability and validity are of considerable importance. The five observers in Clark et al.'s (1986) study used a pre-formatted, newly developed and piloted "tool" (based on *the Discrepancy Evaluation Model*), developed in partnership with the nursing staff. Although considerable detail is provided regarding the development of the tool itself, little attention is paid to the recording process in the collection of data. In particular, a question of intra- and inter -observer reliability is not raised by the authors, despite the considerable room for error where there are five observers. These problems may also have arisen in Macleod Clark et al.'s (1997) study where observation of nursing practice formed one part of the data collection. Twinn (1997) discusses in detail the methodological issues around translation and the use of translation and back translation from the Cantonese to the English language lends credibility to the study. The "reliability" of the questionnaire used was not tested but the authors assert that the "the use of triangulation provided an opportunity to check the consistency of data". Despite this assertion, it would be more rigorous for a pre-test or pilot study to have been carried out and its absence compares unfavourably with questionnaire development undertaken by Jansson et al. (1998). Those researchers used pre-tested questions where available and in addition, pre-tested and piloted the questionnaires prior to distribution. They report on internal reliability in the results of their study. The ICHN, in using a structured interview

approach to data collection, also undertook some pre-testing. They note that "questions were formulated and tested on other mothers, being altered or added to as was appropriate" (ICHN 1995 p13). A pilot study was undertaken "to assess feasibility and appropriateness" of other tools used in Twinn and Shiu's study (Twinn 1997). As the researchers were not subsequently able to identify epidemiological needs of families from nursing records, it is likely that the pre-testing of the tool for this purpose was limited. Worth and Hogg (2000) provide little information about how data were collected so an informed judgement about this aspect of the study is not possible.

Data were collected about a range of variables relating to the service. Findings from different studies can be grouped according to the following categories:

- **Client:** Experiences of child rearing (Worth and Hogg 2000): Maternal and Infant health needs (Clark et al. 1986, Twinn and Shiu 1996, Jansson et al. 1998).
- **The PHN / Health Visitor:** Educational level (Twinn and Shiu 1996, Macleod Clark et al. 1997, Jansson et al. 1998), experience (Clark et al. 1986) nurses' attitudes / personalities (Twinn and Shiu 1996, Worth and Hogg 2000).
- **Interaction between client and PHN:** Components (e.g. developmental, assessment, broad view (Clark et al. 1986, ICHN 1995, Macleod Clark et al. 1997), approach (e.g. being kind, non-judgemental, individualised, partnership approach) (Macleod Clark et al. 1997, Jansson et al. 1998, Worth and Hogg 2000).
- **Interaction between PHN / Others:** (Macleod Clark et al. 1997).
- **Organisation of care:** Busyness of the clinic / having enough time (Clark et al. 1986, Twinn and Shiu 1996, Jansson et al. 1998), accessibility and choice (Twinn and Shiu 1996, Macleod Clark et al. 1997), clinic environment (Clark et al. 1986, Twinn and Shiu 1996), home visits (Macleod Clark et al. 1997, Jansson et al. 1998), continuity of care (Macleod Clark et al. 1997), urban / rural environment (Jansson et al. 1998).

In summary, a wide variety of techniques was used to gather data about a number of aspects of the service. Limitations relating to this area of the studies centre around

insufficient pre-testing or piloting of instruments when gathering data (Twinn and Shiu 1996), and issues around inter-rater reliability on observation tools (Clark et al. 1986, Macleod Clark et al. 1997).

4.4.5 Analysis of the data

Jansson et al. (1998) employed both descriptive (mean, percentages and standard deviations) and inferential techniques (chi-squared, significance level $p < 0.05$), and between and within group comparison of responses took place. The ICHN (1995) note that two employees of a sociology department carried out data analysis and computerisation on their behalf, and data are presented using descriptive statistics including median averages, percentages and weightings for ranks. Worth and Hogg (2000, p222) write that "data were analysed using the NUD*IST software" and no other information about how the analysis was carried out was provided. In Clark et al.'s (1986) study, standard times for each component of the service were developed and "time wasting" and "time saving" activities identified. Mean average times were then calculated for each activity and this number was presented as the amount of time appropriate for that particular activity. In a number of instances, however, nurses combined activities (e.g. teaching the parent and examining the child) at the same time, and Clark et al's solution of dividing the mean average by the number of activities is considered here as a limitation of the study.

The remaining two studies - Macleod Clark et al. (1997) and Twinn and Shiu (1996) - present more complex analyses. Macleod Clark et al. (1997) provide substantial description of the analysis which began during data collection. The collaborative nature of the research where the "principle of sharing emerging data on quality indicators was adopted throughout" (p33) lends credibility to the study. Examinations of individual and multiple perspectives of quality indicators were made possible through a thematic analysis of transcripts and field notes, and the use of triangulation in a search for convergence enhanced rigour. Cross-case analysis enabled similarities and differences as well as influences on practice to be identified. Twinn and Shiu (1996) used a two-stage methodology where initially, quantitative and qualitative data were analysed according to their particular paradigm. This was followed by

individual and cross-case analysis. Twinn and Shiu (1996) also identify the sharing of data analysis with other team members as a mechanism for enhancing rigour.

In summary, data analysis ranged from simple descriptive statistics to complex case study analysis. Only one study was identified as problematic in relation to analysis (Clark et al. 1986).

4.4.6 Results

Credibility of results in quantitative studies is generally measured via the precision and accuracy of measuring devices, confidence intervals and the power of the study to detect difference if such a difference exists (Sackett et al. 2000, Greenhalgh 2001). No study employing quantitative methods (Clark et al. 1986, ICHN 1995, Twinn and Shiu 1996, Jansson 1998) reviewed here presented data regarding confidence intervals or study power and this limits the interpretation of the findings. The precision of the data presented by Clark et al. (1986) has already been questioned on the basis of combination of two or more activities.

The provision of "verbatim quotes" greatly enhances credibility in qualitative research (Cutcliffe and McKenna 1999, Greenhalgh 2001). Twinn and Shiu (1996) present no raw data in their presentation of results although one short paragraph is used to illustrate methodological problems (Twinn 1997). This compares with Worth and Hogg's (2000) account of the results where substantial verbatim quotes are provided which assist in making transferability judgements possible (Lincoln and Guba 1985). Macleod Clark et al. (1997) also used verbatim, albeit short, quotes to illustrate views of indicators developed.

4.4.7 Generalisability and transferability

Each of the studies reviewed share commonalties, but also differences, and this is reflected in the conclusions drawn. Some studies (ICHN 1995, Jansson et al. 1998, Worth and Hogg 2000), make claims for the inclusion of certain components in a quality service by "highlighting the aspects of the health visiting service which parents find effective" (Worth and Hogg 2000 p227). Others make claims for the understanding of nursing service quality through the development of quality

indicators (Macleod Clark et al. 1997), the creation of a productivity standard (Clark et al. 1986), and the operationalisation of health need, organisation of care, and service provision (Twinn and Shiu 1996).

The extent to which the various authors lay claims to the generalisability and transferability of their work also varies. Twinn (1997 p758) writes that the study was "exploratory" and that "obviously the findings of this case study cannot be generalised to other cultural groups". Clark et al. (1986 p96), on the other hand, conclude that the tool developed by them "is adaptable to almost any public health nursing setting" (Clark et al. 1986 p96). Macleod Clark et al. (1997 p95) "emphasise" that their research represents the "first tentative steps in illuminating key issues in the development of quality indicators".

4.4.8 Identifying a methodology

Some of the studies included above clearly emerge from this review as having more "credibility" than others. The questionnaire surveys undertaken by Jansson et al. (1998) followed rigorous methodological processes including randomised sampling strategy, pre-testing, pilot testing and the provision of reliability data from the questionnaire and the consumer satisfaction survey undertaken by the ICHN (1995) compares unfavourably with this. The sampling technique used by the ICHN was fundamentally flawed and this undermines the study's credibility. Clark et al.'s (1986) study was also found to have limitations especially in relation to the sample of clinics included in the study. The narrow understanding of service quality ("productive use of nurses' time") used in this study also limits wider application. Worth and Hogg (2000) identified very broad aims that included parenting practices as well as service effectiveness and the lack of information about analysis, raises questions for the credibility of the study in general. The presence of a number of quotes does, however, provide some basis for transferability of the findings.

The case studies undertaken by Macleod Clark et al. (1997) and Twinn and Shiu (1996) were guided by the work of Yin (1994) and this is explicit throughout. A full report of the study undertaken by Macleod Clark et al. (1997) was available and therefore, many of the criticisms of other studies due to lack of presentation of

specific information did not arise here. Notwithstanding that, the case study reported by Twinn and Shiu (1996) is less credible than that of Macleod Clark et al. (1997). Issues identified as problematic include difficulties in identifying "the case", lack of data regarding reliability and validity of the survey questionnaire, and the extent to which the guiding theoretical framework (where effectiveness of the service is the extent to which needs are met) was compromised by an absence of data. In the presentation of results, there is an absence of any "verbatim quotes" and this makes transferability difficult.

With the exception of the studies undertaken by Clark et al. (1986) and the ICHN (1995), each of the study methodologies used above has merit in respect of my study. Yin (1994) writes that three key issues determine what strategy should be used in undertaking research. These are

- the type of research question posed
- the degree of control an investigator has over actual behavioural events, and
- the degree of focus on contemporary as opposed to historical events.

The first criterion for case study strategy is that the research questions posed should be concerned with "why" or "how" (rather then "where" and "what") and my study meets this criterion. Key questions guiding this enquiry are "how is the process of public health nursing enacted?", "how is service quality constructed?", and "how does the organisational structure influence the process of public health nursing?". In relation to the second criterion, an absence of control over behavioural events is central to understanding service quality in its natural setting and, in such circumstances, it has been argued that case study is the approach of choice (Yin 1994, Hitchcock and Hughes 1995, Stake 1995). Intensive and detailed examination of the real life setting using multiple sources of data allows for an exploration of various interactive processes at work within that situation (Yin 1994, Stake 1995). These allow the researcher to capture the richness of organisational behaviour and to incorporate the complexity and embeddedness of the social situations (Cohen et al. 2000). The work of Macleod Clark et al. (1997) illustrates ways in which this can be done. The third criterion relates to the temporal focus, which according to Yin (1994)

should be on a "contemporaneous" phenomenon or, as Cohen et al. (2000 p180) term it "an instance in action". In my study the focus will be on contemporary events as they take place in practice and so, all three criteria identified by Yin (1994) as a rationale for case study research are met here.

Other aspects of case study research make it more advantageous than other approaches. Case study research is particularly useful when little is known of a subject area (Appleton 2002) and it is "well-suited to exploring many situations that provide a focus in nursing" (Clifford and Gough 1990 p75). It seeks to "understand" rather than "explain" the issue being investigated (Gable 1994) and takes account of differing standpoints and perspectives (Stake 1995, Cohen et al. 2000). In the Republic of Ireland little is known of the provision, organisation or delivery of the public health nursing service to families with infants and an examination of research relating to how key stakeholders experience the service or how they understand its quality has not been undertaken. Case study is "strong in reality" and insights gained can therefore be directly interpreted and put to use in policy and practice development.

4.5 Conclusion of literature review

The origins of service quality have given rise to expectations that quality in the health services sector can be understood in single figure composite measures. 'Doing' quality, however, is a complex undertaking with many strands. The literature on quality encompasses defining and understanding it, modelling it, assessing and evaluating it, constructing instruments, reporting it, improving it, controlling it, and assuring it. It is influenced by philosophical and epistemological assumptions, by sector and discipline, by geography and history. The audience for, and purpose of, any exercise in 'doing' quality will influence approaches to the exercise as well as modes and techniques of assessment used, and the dimensions and indicators evaluated. 'Doing' quality weaves these numerous strands into a complex web where choices are made and decisions are taken, sometimes explicitly but often implicitly.

The theoretical lens through which quality is viewed has a direct effect on the parts or dimensions that are included. In nursing, quality has been understood as a political issue (Shaw 1997), a social construct (Redfern and Norman 1990), and an ethical issue (Larabee 1996, Huycke and All 2000). It has been defined as professional standards (Dozier 1998), customer satisfaction (Kleinsorge and Koeing 1991, Murray et al. 2000), a system of management (Parsley and Corrigan 1994), and effectiveness (Twinn and Shiu 1996). Quality can be understood through any one of the above perspectives but different lenses prioritise different aspects. Understanding service quality through customer satisfaction priorities the client; professional standards the professional; and a system of management, the manager. An economic lens prioritises cost effectiveness while a political lens prioritises the role of policy. My own theoretical lens is discussed in some detail later in chapter 5.

Audience also influences the undertaking of a quality exercise. While overlap may occur, a quality exercise carried out for one audience will differ both in content, and in priority ranking of content areas, from an exercise carried out for another audience. Quality procedures carried out for a 'client' audience might focus on patient satisfaction with information given, access to the service, relevance of the service, capacity of the service to meet patient needs, or nature of the service delivery. Quality procedures carried out for a 'management' audience might focus on the throughput of

clients, screening outcomes, cost-effectiveness and cost implications. Quality procedures carried out for a 'PHN' audience might focus on creating understandings of how the service operates in its entirety, 'working clients up' for accessing other services, making a difference to the quality of life, techniques for evaluating 'success', and exposing and legitimating elements of the work. Audience and purpose are, of course, difficult to separate and both of these will exert considerable influence.

Despite these difficulties, many methods of inspecting, measuring, and assuring quality in practice have been developed. These include benchmarking (Edwards 1986, Ellis and Morris 1997, Ellis 2000), audit (Ventura 1980, Clarke et al. 1998), peer review (Hogston 1995), best practice (European Commission 1999), best value (Keenan 2000), and clinical effectiveness (Adams 1999). Others have concentrated on indicators (Kitson 1986, Grant et al. 1996, Macleod Clark et al. 1997), criteria (Chance 1980, Donabedian 1981, Kitson et al. 1994), and schemes (Norman et al. 1994a, 1994b) although standards setting is a central feature for many (Donabedian 1966, Lang 1976, Parsley and Corrigan 1994). Preceding each of these is an essential pre-requisite of knowledge of the service. In the Irish situation, little is known of the public health nursing service itself and almost nothing is known of its quality. The application of any one of these mechanisms for measuring service quality, in such circumstances, is problematic.

This literature review has attempted to unravel a complex web relating to quality and the public health nursing service to families with infants less than one year. In doing so it has identified a clear aim for this study. This aim is to describe the public health nursing service to families with infants in the Republic of Ireland and to develop a model of service quality that will enable a holistic understanding of the service. This understanding will make explicit the various components and dimensions of service quality that are relevant to key stakeholders, and present them in a way that respects, values and acknowledges each viewpoint. A necessary pre-requisite to meeting this aim is a description of the public health nursing service itself.

Chapter 5: Methodology and Methods

5.0 Introduction

The methodology used in this research was case study. Key issues relating to choices made in undertaking the study (methodology) as well as the specific research techniques (methods) employed are now presented. In the discussion that follows, the contested nature of case study, difficulties in identifying and bounding the case, and the guiding theoretical framework are identified. This is followed by an explication of the three main methods used and these were

- national questionnaire surveys of PHNs and PHN managers
- interviews (individual and group), and
- non-participant observation.

The aims and objectives of the study remained the same throughout although data, collected in two distinct but inter-related phases, were underpinned by differing epistemological understandings. The use of triangulation increases the probability that findings and interpretations are credible (Lincoln and Guba 1985) and, at the outset, triangulation was identified as a means through which both phases could be merged (Redfern and Norman 1994). The complexity of this became clearer as the study progressed. The initial phase, guided by Yin (1994), focussed on data collected from a census survey of PHNs and PHN managers using two newly developed questionnaires. Details reported on include operationalisation of the theoretical framework, subjects studied, research instruments used, procedures used in applying these to the subjects, and analysis (Robson 1993). The second phase focussed on four case study sites and this phase was guided by Stake (1978,1994, 1995). Issues relating to data studied, how the data were obtained, advantages and disadvantages of methods used, and the use of a guiding constructivist approach are presented. The analysis undertaken on various data sources and types, as well as individual and cross-case analysis, is made explicit. Challenges arising from the use of multiple data sources, data types, and methodologies are addressed. Ethical considerations guiding the study are presented and key areas relating to consent, privacy and confidentiality discussed. Finally, consideration is given to issues of dependability, confirmability and credibility, and the extent to which the findings from this study are transferable to other contexts.

5.1 Aims and objectives

The overall aim of the study is to develop a model that enables quality in the public health nursing service to families with infants to be understood in a holistic way. This holistic way will incorporate multiple stakeholders' views, and will take account of the organisational context within which the service is provided.

5.1.1 Objectives

1. To describe the structure of the public health nursing service provided by PHNs to clients with infants less than one year of age.
2. To describe the process of the public health nursing service provided by PHNs to clients with infants less than one year of age.
3. To identify outcomes relating to health and social gain for this client group or any unintended consequences of the service.
4. To examine how key stakeholders construct service quality.
5. To apply these constructs to the public health nursing service to this specific client group.
6. To develop a working model to take account of these constructs.
7. To make recommendations for the improvement of the public health nursing service to clients with infants less than one year of age.

These objectives were broadly translated into the following questions, and these guided data collection and analysis.

What is the structure of the public health nursing service to families with infants?

How is the process of the public health nursing service to families with infants enacted?

How does the organisational structure of the public health nursing service influence the process?

How do clients, providers and managers experience the service?

How do key stakeholders construct service quality?

5.2 Case study

Bryar (1999 p63) notes that the definition of case study research "is fraught with confusion" and in comparing and contrasting definitions from six different authors, identified twelve different features across which case study could be differentiated. Some authors provide precise definitions. Yin (1993 p19) writes that case study is

> a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context, using multiple sources of evidence.

Others argue that because "practices already exist for case study in many disciplines", precise definitions cannot be made (Stake 1995 p2). Stake (1995 p2) also argues that case study is not a methodological choice but rather "a choice of object to be studied". Other interpretations have also been presented (Ragin and Backer 1992) and these include, case study as a technique (for reporting findings) (Burgess 1984, Lincoln and Guba 1985), a strategy (Robson 1993, Yin 1993), and a method (Kean and Packwood 1994). It has been suggested that case study is "an umbrella term for a whole range of research techniques or methods" (Verma and Mallick 1999 p114), a view supported by Hammersley and Gomm (2000 p2) who write

> all research is case study: there is always some unit, or set of units, in relation to which data are collected and / or analysed.

Definitional differences can be useful because they give some insight in to various understandings of case study and, into the different foci underpinning various authors' presentations. Lincoln and Guba (1985), in defining case study as a technique for reporting the findings of naturalistic inquiry, identify it as a research output rather than a research process. This understanding of case study is common in the medical literature where individual case reports, sometimes leading to case series, are focussed on the output or findings of the report rather than the process (Mausner and Kramer 1985). The positioning of case report at the lowest possible level of descriptive research (Hennekens and Buring 1987, Bryar 1999), or as de Vaus (1991 p42) notes as "the most primitive design" in a hierarchy of research, has not been helpful in enhancing credibility of case study use in nursing research. Indeed, it can be seen as a distinct disadvantage in adopting this approach. In tracing the historical progression of case study research, Bryar (1999) notes that although it was associated

with the Chicago School of Sociology, it has also been a feature of disciplines such as anthropology, economics and geography.

Sometimes, the term case study has been used inter-changeably with ethnography (Burgess 1984, Hitchcock and Hughes 1995) although it has been suggested that ethnography is just one of a number of theoretical lens that can underpin case study (Merriam 1988). The focus for some authors has been the type of data collected. Hitchcock and Hughes (1995) report that some case studies are quantitative, and many authors suggest that case studies may involve the collection of quantitative as well as qualitative data (Robson 1993, Yin 1994, Punch 1998, Cohen et al. 2000). Stake (1978 p6) notes that although case studies can be "highly statistical", in his understanding they are

> (D)escriptions that are complex, holistic and involving a myriad of not highly isolated variables: data that are likely to be gathered at least partly by personalistic observation; and writing style that is informal, perhaps narrative, possibly with verbatim quotation, illustration and even allusion and metaphor. Comparisons are implicit rather than explicit. Themes and hypotheses may be important but they remain subordinate to the understanding of the case.

This understanding of case study draws on a range of issues that includes methods used, the data collected, the analysis of the data, and the focus of the investigation.

5.2.1 Case study types

"Case studies" have been categorised in many different ways (Bryar 1999) including by number of units studied (Stake 1994, Yin 1994), focus (Robson 1993), purpose (Yin 1994, Stake 1995), methodology (Polit and Hungler 1989), theory (Merriam 1988), and epistemology (Merriam 1988, Polit and Hungler 1989). Key aspects of the various categorisations are presented below in Table 5.1.

Table 5.1: Comparison of case study categorisation by author

Author	Categorisation
Verma and Mallick (1999)	Observational, historical and clinical
Stake (1995)	Simple or complex; intrinsic, instrumental or collective
Yin (1994)	Single (holistic or embedded units) vs. multiple; Descriptive, exploratory or explanatory
Robson (1993)	Individual case study, set of individual case studies, community studies, social group studies, studies of organisations and institutions, studies of events, roles and relationships
Polit and Hungler (1989)	Single-case experiment to longitudinal prospective
Merriam (1988)	Ethnographic, historical, psychological and sociological

Yin (1994 pxiii) writes that the stereotype of case study as "weak sibling" emerges from a lack of clarity because of the multiple understandings of case study as a teaching tool, a research tool, qualitative data, or ethnography. He suggests that, by making explicit certain elements such as problem definition, design, data collection, data analysis, and composition and reporting, case study can be understood within a broad research design framework. He explicates a conceptual framework for operationalising case study that includes study's questions, propositions, unit(s) of analysis, logic linking the data to the propositions, and the criteria for interpreting the findings. This explication contrasts with Stake (1995 pxi) who notes that the guiding theoretical framework is drawn from "naturalistic, holistic, ethnographic, phenomenological, and biographic research methods" and is underpinned by constructivism.

To summarise, the nature of case study is contested. It has been identified, among others, as a reporting mechanism, a process of data collection, an umbrella term for qualitative methodologies and as a specific research design. There is wide support for Bryar's (1999 p63) contention that a distinguishing feature of case study research is that "although the number of cases may be small, the number of variables is large". In this study, I understand case study to be a research strategy, where there is an explicit attempt to preserve the "wholeness, unity and integrity" of the case (Punch 1998 p153), and where multiple sources of data and multiple data collection methods are

used (Yin 1994, Stake 1995). The study is presented as a collective case study with four case study sites (CSSs) (Stake 1995).

5.2.2 Defining the case

A number of researchers have noted that the central problem many researchers have in undertaking case study research is the problem of clearly identifying "the case" (Yin 1994, Hitchcock and Hughes 1995). This problem is greatly exacerbated by differences identified above in understandings of "case study" (Appleton 2002). For Yin (1993 p10), the case is defined as "a contemporary single unit or phenomenon of study". This compares with Stake (1978 p7) who takes a broader view by reporting that the case is a "functioning specific" that may be an "institution", "programme", "responsibility", "collection", or a "population". Yin (1994 p17) criticises the breadth of this definition because he writes, "everything would then be a case study, regardless of the methodology used". Appleton (2002) is supportive of Stake and notes that anything can be a case as long as the researcher can depict it clearly. It is, she suggests, the phenomenon of interest and the context that constitute the case. Difficulties arising in respect of a lack of clarity of focus for data collection and analysis were identified in one study reviewed in the literature where the case was not clearly identified (Twinn and Shiu 1996, Twinn 1997).

Consequently, although it has been suggested that many researchers will not know exactly what their case is until the research is complete (Appleton 2002) there is a need to "bound" the case (Hitchcock and Hughes 1995, Stake 1995). There were many difficulties in bounding the case in my study because a lack of a research base on the Irish public health nursing service meant that little was known of the case. A description of the case itself was a necessary starting point for the study and was identified in the objectives as a focus for the study. It was not possible to be entirely clear about the constituent parts of "the case" at the beginning of the study but it was possible to identify certain boundaries. Hitchcock and Hughes (1995) write that cases may have

- Temporal characteristics which will help to define their nature
- Geographical parameters allowing for their definition

- Boundaries which allow for definition
- Characteristics of the group that may be
  - Defined by an individual in a particular context
  - Defined by role or function
  - Shaped by organisational or institutional arrangements.

The case in this study is the public health nursing service to families with infants in the Republic of Ireland. The key "issue" under examination is "understanding service quality". The case, therefore, is bounded geographically (the Republic of Ireland), by group characteristics (public health nurses, families with infants), through role and function (public health nursing, parenting), and by organisational arrangements (public health nursing service, family living). I want to say here that initially, it was not my intention to bound the case geographically as the Republic of Ireland but, rather, as one health board area. Difficulties, discussed later, that centred around anonymity, confidentiality and social access as well as issues of "generalisability" and transferability influenced this decision. These are discussed below.

5.2.3 Theoretical perspective

My formal research training began in the late 1980s when I undertook a diploma in research methods at the Royal College of Surgeons Ireland. It continued through the 1990s and, in 1994, I completed an M.Sc. (community health) at the Department of Community Health and General Practice, Trinity College Dublin. Both Diploma and Masters programmes were predominantly focussed on quantitative research methods and the M.Sc. in particular, with a strong focus on epidemiology and bio-statistics, led me to a broadly positivistic position where my belief system was underpinned by

- An ontological assumption of a single tangible reality where the whole was simply the sum of the parts
- An epistemological assumption that I, the knower, could be separate from the known
- An axiological assumption that methodology had the potential to guarantee freedom from bias, and

- Assumptions that observations made could be temporally and contextually independent.

In keeping with my background in epidemiology, axioms that "causes precede effects" and there are "no effects without causes" were particularly important. Before I started an initial literature review (Appendix 1), however, it was becoming increasingly clear to me that an ontological assumption of a single tangible reality was untenable. As the mother of an infant, a PHN and a PHN manager I could see that service quality could be understood in many different ways according to the particular perspective brought to bear, and each of these perspectives could differ according to a number of dimensions. Further, having worked in different health boards and community care areas in the Republic of Ireland it was clear that the context for the public health nursing service to families with infants differed in terms of organisation, provision, delivery, clientele, and environment. Quality, and how it was understood, therefore, was not and could not be context-free.

Paradigm debate and diversity have not been a typical feature of quantitative research where the approach of constructing concepts and measuring variables is inherently (and often implicitly) positivistic (Punch 1998). Although it has been suggested that positivism and qualitative nursing research have much in common (Paley 2001), the implicit nature of assumptions in a positivist approach often excludes an acknowledgement that other realities can exist. In choosing to undertake case study research, I was explicitly acknowledging the importance of multiple realities, of my own position as researcher within the research, and also giving primacy to qualitative inquiry. Two authors (Yin 1994, Stake 1995), in understanding case study as a methodology, provided more guidance than others and initially, the work of Yin appeared more commensurate with my own belief system. As Stake (1995 pxii) notes, Yin provides "an excellent guide for a more quantitative approach" and consequently I drew on this work to guide me in the early part of this case study.

An organizing framework

Initially, guided by Yin's (1994) research strategy where "a study's propositions" were identified as the second of five components in planning the study, I sought out an organising framework for the study. I came to this with an understanding that such a

framework should accommodate an ontological position that recognised multiple realities, and take account of the context and natural setting within which the service was delivered. I came to this also with an understanding of theory as

> a set of interrelated constructs (concepts), definitions, and propositions that presents a systematic view of the phenomena described by the variables (Kerlinger 1972 p11).

In such an understanding, hypotheses are deduced and expressed in operational terms through a series of propositions. Testing the propositions either confirms the original theory or suggests some modification is required. Following this, if necessary, the revised theory is verified through repeating the cycle (Robson 1993).

Having reviewed the literature, I was aware that while a substantial literature existed on defining, inspecting, monitoring, implementing, evaluating, and managing quality, developments in respect of a "theory of quality" were limited (Barr and Markham 1996, Jaros and Dostal 1999). Certain theories relating to the individual or the organisation, including consumer satisfaction (Parasuraman et al. 1985), attribution theory (Bardwell 1986), theories of individual motivation (McClelland 1975), leadership (Fiedler and Garcia 1987), and group cohesiveness (Leveck and Jones 1996) had been used to guide studies related to quality. Although some of these met some of my study's requirements, none fully met the need to accommodate a holistic understanding of service quality that takes account of multiple realities within their natural settings.

Donabedian's seminal work on structure, process and outcome (SPO), however, did accommodate multiple realities, did seek to take account of the natural setting within which the service operated and did propose a holistic understanding of service quality.

In his definition of process, Donabedian takes account of more than one perspective (clients and practitioners). He writes

> Process is what is actually done in giving and receiving care. It includes the patient's activities in seeking care and carrying it out, as well as the practitioner's activities in making a diagnosis and recommending or implementing treatment (Donabedian 1988 p1745).

Interpretation of the process elements of care incorporates both subjective (inter-personal performance) and objective (technical performance) components and these

two aspects of care were also noted to be key elements in relation to the process of public health nursing and health visiting. "Structure" appeared equally comprehensive and takes in to account material, human, and organisational resources. Donabedian writes

> Structure denotes the attributes of the settings in which care occurs. This includes the attributes of material resources (such as facilities, equipment and money), of human resources (such as the number and qualifications of personnel), and of organisational structure (such as medical staff organisation, methods of peer review and methods of reimbursement (Donabedian 1988 p1745).

Donabedian's definition of outcome also includes both subjective (satisfaction) and objective (knowledge, behaviour change) parts. He defines outcome as

> The effects of care on the health status of patients and populations. Improvements in the patient's knowledge and salutary changes in the patient's behaviour are included under a broad definition of health status, and so is the degree of the patient's satisfaction with care (Donabedian 1988 p1745).

His assertion below that all three (structure, process and outcome) "approaches" are necessary suggests a holistic commitment to assessing service quality.

> For now, all that is needed is to accept provisionally that there are three major approaches to quality assessment: "structure", "process", and "outcome". This three-fold approach is possible because there is a fundamental functional relationship among the three elements, which can be shown schematically . . . (Donabedian 1980 p83)

The relationship shown by Donabedian (1980) is as follows

Structure ⟶ Process ⟶ Outcome

I believed that, if it were possible to make explicit the relationships between structure, process, and outcome, a systematic view of quality could be presented. Consequently, it was my understanding that the SPO framework could meet the definition of a theory identified by Kerlinger (1972) provided the relationships were made clear. Further, Donabedian's work could facilitate the inductive development of a model for understanding service quality that met the requirement to take account of multiple perspectives as well as organisational context. The identification of propositions, as suggested by Yin, could be accommodated within this, and these propositions were as follows.

P^1 Key stakeholders involved in the public health nursing service to families with infants under one year make an assessment of service quality on the basis of structure, process and outcome.

P^2 Certain structural characteristics give rise to specific processes which, in turn, give rise to specific outcomes

P^3 A model of understanding can be developed inductively that will enable service quality to be assessed in a holistic way. Such a model will facilitate the perspectives of key stakeholders while taking account of the natural setting within the organisation.

My main concerns were criticisms of Donabedian's work by other authors and these were two-fold. First, there were problems with delineation of the categories of structure, process and outcome (Closs and Tierney 1993, Parsley and Corrigan 1994, Fihn 2000). Fihn, for example, wrote that "knowledge is the key to good quality care and knowledge is in and of itself neither a structure nor a process" (p1741). This is clearly problematic because delineating concepts, a key element of theoretical development, can be difficult if one item crosses two categories (Davidson Reynolds 1971). Donabedian never dealt satisfactorily with this criticism. The second problem related to the way in which others constructed Donabedian's work. Two issues arose here. First, some authors understood Donabedian's work as giving primacy to outcome measurement over process (Carr-Hill 1994, Mitchell et al. 1998, Badger 1999, Coyle 2000). Carr-Hill, in making a case for process measures of care, lamented the "over-indoctrination" of people by Donabedian's focus on outcome. Donabedian himself, however, has made the case many times for the primacy of process over outcome (Donabedian 1968, 1980, 1988, 1993). As recently as 1993, he wrote

> I place the interaction of patients and practitioners at the centre of the health care universe because I believe that it is there that the processes and decisions most critical to quality take place (Donabedian 1993, p33).

In addition to these two main issues, there was a less overt sense that Donabedian's work was seen as atheoretical, particularly by people involved in health service

research (although many continued to use his work to frame papers and studies). This then gave rise to my second area of concern at that time. Was the use of Donabedian's work defensible in the context of my study and could his work be understood as a theory? In 2000, in the document I submitted to Kings College for conversion from M.Phil to Ph.D., I wrote

> The first point to be considered is nomenclature and Donabedian's work. What referent best applies? Is it a model, a framework, a theory? Those who use, describe or apply Donabedian's work use, variously, the terms "model" (Eisenber, in Donabedian 1989), "dimensions" (Badger 1999, Douglas et al. 2000), or "framework" (Closs and Tierney 1993) rather than "theory" (p93).

My position on Donabedian's work at this point is that it provides a framework for exploring quality. It falls short of being a theory because of difficulties in the delineation of categories in addition to an absence of an explication of the links between structure, process and outcome. The concerns raised above at the time of conversion from M.Phil to Ph.D. represent a particular understanding of the use of theory in research, one that favours deduction over induction (Denzin and Lincoln 1994), theory verification over theory-generation (Gomm et al. 2000), theory testing over theory development (Polit and Hungler 1989), and a commitment to theory first over theory after (Punch 1998). Yin's (1994) approach to case study accommodates a deductive approach and was consistent with my paradigmatic orientation at that time. Accordingly, I adopted certain methods, specifically the use of survey questionnaires, where difficulties of delineation were taken account of in the operationalisation of structure and process. The use of open-ended questions enabled the identification of outcomes.

5.2.4 The collective case study boundary

In the initial planning stages of my study, I intended to undertake the research in one health board area. During October and November 1998, written contact was made with the chief executive officer (CEO) of that board and with each of the superintendent PHNs (re-named directors of public health nursing from 2000) working there. Discussions and meetings were held with the CEO and with all PHN managers and these meetings had a number of purposes. They were intended to provide full information about the study, to seek the support of management, to enhance subsequent social access, and to ensure full permission was received for each

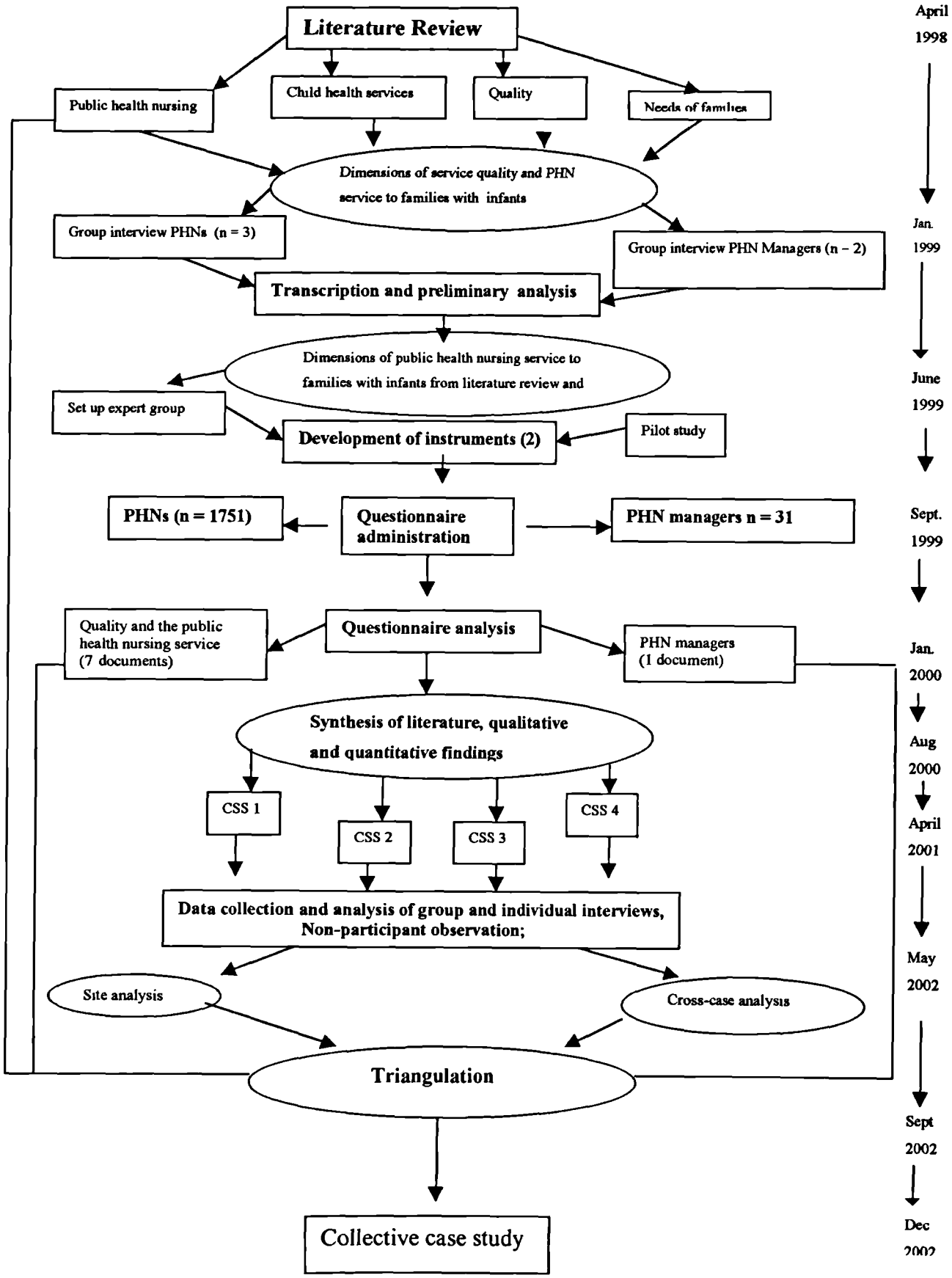
stage of the study. I gave copies of the research proposal to all superintendent PHNs so that we could have full and frank discussions about the proposed research. The research proposal laid out a two-stage design, the first stage of which was a census survey of all whole-time equivalent PHNs in the board area (n = 120) and the second of which entailed observation of client-PHN dyads within their natural setting (case study sites). The managers expressed concerns that the study might identify quality issues of a negative kind within the individual health board area and, if this were attributed only to that board, it would reflect badly on them.

This episode raised a number of questions for me and I re-visited the research design with them. I decided that the cost and time involved in undertaking a national study (rather than a regional one) would be worthwhile. Advantages in doing this related to external validity and also to the opportunities to situate the research findings within a national context. This could allay the fears expressed by managers. A meeting was then held with the chief education officer and the president of An Bord Altranais (the Irish nursing board). They agreed to facilitate the carrying out of the PHN survey. Consequently, rather than the case being bounded by one health board area, it was bounded nationally, thus greatly increasing the scope of the study.

5.3 Methods

An overview of the chronology used in this study is graphically presented in Figure 5.1. Initially, I facilitated group interviews with PHNs (n = 3) and PHN managers (n = 2). Following this, two newly developed questionnaires were distributed to a census population of PHNs (n = 1751) and PHN managers (n = 31). Analysis of the questionnaires enabled the identification of four instrumental case study sites where I collected data from PHNs, PHN managers, and clients using individual and group interviews as well as non-participant observation. Group interviews are paradigmatically and methodologically more closely aligned than other types of interviews to the constructivist position adopted in phase two. For that reason, although some group interviews took place in phase one of the study, they are considered in the section relating to phase two.

Figure 5.1: Flow-chart of Case Study



5.3.1 National questionnaire surveys

A survey enables a description of the nature of the existing conditions, as well as allowing for a comparison of these conditions according to the processes undertaken (Cohen et al. 2000). In this study, a description of the service, in terms of structure and process, was considered a necessary starting point for understanding quality in the public health nursing service. Although only a limited number of variables could be examined within a survey format, I felt that such an approach would allow for the broad landscape of public health nursing to be mapped. The use of a tried and tested tool has many advantages. These include a reduction in the amount of work, time and resources involved, an increase in the amount of information available in terms of reliability and validity, and an ability to compare findings with other studies (Robson 1993, Punch 1998, Cohen et al. 2000). Prior to this study, little was known about the public health nursing service itself and a key purpose in undertaking a survey was to identify differences in the organisation, delivery and provision of the service. No previously developed tool matched this requirement although this was not surprising since the organisation of the public health nursing service in the Republic of Ireland is quite different to services elsewhere. Consequently, a new questionnaire was constructed although parts of the questionnaire incorporated questions used and validated elsewhere. The delighted-terrible (D-T) Likert-type scale (Andrews and Withey 1976), for example, was adapted and incorporated into the questionnaire in respect of perceptions of the clinic base.

Two questionnaires were developed, one for use with PHNs and the other for use with PHN managers. The questionnaire developed for use with PHNs was more complex than that developed for PHN managers. Questions asked on the PHN manager questionnaire were similar to the open-ended ones used for PHNs and this allowed for comparison between PHNs' and PHN managers' understandings of service quality at the analysis stage. The questionnaire developed for PHNs was guided by two key requirements. These were

- to describe key structures and processes of the public health nursing service at individual level, and
- to identify respondents' understandings of service quality.

Development of questionnaires

The development of the questionnaire took place in five steps and these are now described.

Step 1: Content identification: Two key sources, the literature review and the group discussions (discussed later) that took place with PHNs and PHN managers, were initially used to identify the scope of potential areas for inclusion. More than one hundred items had been identified in the literature and these are listed in Appendix 1. Group interviews raised a number of other areas for examination (Appendix 2).

Step 2: Setting up of an "expert" group: The setting up of an expert panel to assist in the development of questionnaires is commonly used in nursing research (Carruth 1996, Padula 1997). In my study, five PHNs and two PHN managers from two different health board areas agreed to act as experts in the developing of the questionnaires. Each was a qualified PHN, had more than five years' experience of working as a PHN, and six of the seven were in current practice. The remaining PHN had left mainstream public health nursing practice the previous year and was working in a specialist area.

Initially, members of the expert group were asked to focus on content validity (whether they felt the indicators identified were complete), and then later to ensure that the items subsequently identified sufficiently sampled the content of the public health nursing service. Lists with potential areas of inclusion identified through the literature review as well as the group interviews were given to each PHN. Each PHN was asked to examine the list and identify areas they considered most useful in the context of this study. Considerable discussion with group members enabled on-going clarification as issues emerged. Later each group member was asked to focus on four main areas. These were

- question content
- question wording
- form of response to the question, and
- place of the question in the sequence.

A guide for questionnaire construction developed by Selltiz et al. (1976), and reproduced in Cohen and Manion (1994), was used to assist this work (Appendix 3).

Step 3: Item identification: A funnelling process allowed five broad areas relating to policy, provider, context, health centre, and service provision to be identified. Areas relating to the recipient (parity, support network, socio-economic status, medical problem with baby / mother) were also identified at this point but as I intended to examine the situation for clients at a later point I excluded items relating to this group. A list of items identified at this point is presented in Appendix 4.

Step 4: Question development: Development took place using a test-retest approach. The questionnaire was to be completed by PHNs, all of whom had a minimum of six years' post-schooling education and this influenced the level of complexity of the questions asked. Cohen and Manion (1994) caution against the use of leading questions, "highbrow" questions (even with sophisticated respondents), complex questions, irritating questions, and questions that use negatives. Where possible, ambiguity was minimised and the expert group was particularly helpful in this regard. Questions were asked in the simplest way possible. For example, Question 24 (3) asking "do you get feedback?", was presented in table format so that a variety of named professionals could be included without asking a complex question or without adding a further nine questions. The response included a five-point Likert-type scale from "always" to "never" and, in order to minimise ambiguity, a precise amount of feedback was indicated (1= always or almost always); 2 = 70+% of the time; 3 = 35-69% of the time; 4 = 5-34% of the time; 5= never or almost never. In other questions (for example, Q29, Q30, Q31, Q32), categories of time were used. Dichotomous questions (for example, Q8, Q9, Q10) and five-point rating scales were also used (for example, Q35, Q36, Q40). Three open-ended questions relating to service quality were included and they focussed on descriptors, enablers and impediments of service quality. These three questions formed the main body of the questionnaire for the superintendent PHNs. Cohen et al. (2000) write that the open-ended question is a

> very attractive device for inviting an honest personal comment from respondents...an open-ended question can catch the authenticity, richness, depth of response, honesty and candour ...which are the hallmarks of qualitative data (p256).

The design and presentation of the questionnaire was given much consideration. Subletting questions by using alphabetical symbols (for example, Q34a) or numerical symbols (for example, 24 (1)), repeating instructions, putting ticks in boxes, and coloured paper (blue) as well as special attention to typography (including inter-line spacing, headings, font size) were all used to ensure the questionnaire was as attractive as possible (Orna and Stevens 1995).

Pilot study of PHN questionnaire

A pilot study of the PHN survey was carried out during August 1999 in order to obtain information for improving the study and to assess its feasibility (Polit and Hungler 1989). The question of a pilot study was considered carefully because a census of PHNs and PHN managers was planned and it was important not to "contaminate" the sample. Having weighed up the associated difficulties, I decided to go ahead with a pilot study for PHNs but not for PHN managers because the numbers involved were so small (n=31). A convenience sample of 14 PHNs was contacted and they agreed to complete the questionnaire. The questionnaire had been extensively pre-tested with the expert group and no major operational problems were identified from the pilot study. Some suggestions were made about clarity and, in respect of two questions, sensitivity problems were identified. The most sensitive question concerned respondent's age category and this question was subsequently removed because of the level of negative feeling expressed by participants in the pilot study. It was unfortunate in some respects not to have a question about broad age category because it would have allowed for a comparison with national data that have since become available, and that show the distribution of PHNs by age (taken from the Bord Altranais register). The second area where sensitivity problems arose related to questions about safety in the health centre. In order to circumvent these difficulties the D-T scale (Andrews and Withey 1976) was incorporated into the questionnaire. This was successfully used instead of the original questions.

Issues that did not arise in the pilot study were subsequently noted from the main study. In retrospect, it may have been more appropriate to ask respondents to rank the centrality of various elements of their work in question 40 rather than asking them to identify "how central each of the following elements of your practice is in providing a quality service to families with infants". This would have allowed for greater differentiation in the analysis of this section. Twenty -three percent (n = 123) of respondents "ringed" 5 ("very central") for all variables and 0.9% (5 respondents) ringed 1 ("not central") for all variables.

There was some evidence that respondents were satisfied with the instrument. Many PHNs wrote positive comments on the questionnaire. A third of respondents (n=204) provided their names and addresses indicating that they would be willing to take part in further study on quality in the public health nursing service; and some respondents commented positively on the questionnaire ("compliments on such a well-thought out questionnaire"), particularly in relation to the adapted D-T scale ("really liked the faces and enjoyed filling out this part"). The only negative comments about the questionnaire related to the number of questions and therefore, the amount of time it took to complete. The cover letter suggested that it was possible to complete the questionnaire in approximately twenty minutes but several respondents indicated that it took longer than this. Given how detailed PHNs' responses were in the open-ended questions, this was not surprising. What was surprising (or at least unanticipated) was the extent to which respondents wished to engage with issues of quality in the public health nursing service. Many respondents continued their comments over onto the blank back page of the questionnaire.

Reliability and validity of PHN questionnaire

The questionnaire was tested for reliability (consistency and accuracy) through pre-testing reliability procedures with the expert group. This enabled the consistency of the questionnaire over time to be measured. A number of scales were used within the questionnaire and Cronbach's alpha, a standard way of expressing a test's reliability by examining the internal consistency of a scale was used. Cronbach's alpha essentially takes every possible way of forming two halves of the test items, correlates the test scores of the halves, and then finds the average of the correlations

(Foster 1998 pp202-203). A Cronbach's alpha coefficient of .80 or above indicates that the scale reflects one underlying concept (Bear and Bowers 1998). With the exception of one scale (client groups with whom PHNs have a responsibility (alpha = .7035 for a 9-item scale), all others showed high internal consistency (in excess of .80). When one item (home helps) was removed from the client groups scale, the Cronbach's alpha increased to .8650. High internal consistency on the scale measuring the involvement of other nurses (alpha = .8777 for a 9-item scale) was seen. The adopted D-T scale had a Cronbach's alpha of 0.8775, indicating a strong correlation between the items in the clinic base scale. A reliability co-efficient (alpha =.8558) for an eighteen-item scale of feedback and working relationships suggests a high internal reliability for this scale. The alpha co-efficient for the "elements of practice" scale was .9033.

Although there is no foolproof way of establishing validity (Punch 1998), every effort was made to ensure content and construct validity was taken into account. The literature review used as the basis for content, coupled with the group discussions, ensured that areas identified were as inclusive and comprehensive as possible. The use of an expert group to develop indicators greatly enhanced content validity. Construct validity is more complex because it focuses on how well a measure conforms with theoretical expectations. Structure and process of the public health nursing service to families with infants were operationalised through the use of specific questions relating to that area and it was possible to examine relationships between them. The most comprehensive understanding of the construct of service quality emerged from the open-ended questions where outcomes as well as the relationships between structure, process and outcome were exposed.

Participant selection and data collection

Although randomised sample selection is generally considered adequate for survey sampling, in this study a census of PHNs and PHN managers was undertaken. The rationale for this related to the sampling frame. Having made a decision to gather data at a national level, I examined different ways in which a sampling frame could be identified. The only complete sampling frame available was through An Bord Altranais (the Irish Nursing Board) and the chief education officer agreed, having

seen and discussed the questionnaire, that they would distribute it to every PHN on the live register. For reasons of complexity and confidentiality, they considered it better to send the questionnaire to each of the 1,751 PHNs on the register rather than taking a random sample.

A cover letter (Appendix 5) to each public health nurse on the live register of An Bord Altranais was attached to each questionnaire (Appendix 6) and a stamped addressed envelope enclosed. This letter explained the purpose of the study, the method by which respondents came to be selected, the manner in which their privacy would be protected, and the use to be made of the data collected. Contact details for the researcher were also included and respondents were invited to make contact, if they wished. A questionnaire for each PHN (n = 1,751) on the live register was sent by courier to An Bord Altranais on 26th August 1999. These questionnaires were then mailed by An Bord Altranais to each PHN during the week of 6th September 1999.

Response rate: PHN questionnaire

Barriball and While (1999) present a threefold typology as the basis for a standard definition of non-response phenomena on the basis of when it occurs in the process. They suggest it can occur during sample selection, sample recruitment, and data collection. A low response rate is a matter for consideration in a postal questionnaire survey and while response rates in the order of 30% are not considered unusual, a response rate above 50% is considered acceptable (Cohen et al. 2000). In order to increase the response rate, superintendent PHNs were contacted personally prior to the distribution of the questionnaire and the study was discussed with them. They were asked to tell PHNs about the study and encourage them to complete the questionnaire and return it to me. A telephone number was included with the cover letter for those seeking clarification regarding the study. A follow-up reminder letter (Appendix 7) was sent on 26th September 1999 to all 1,751 PHNs.

Not all PHNs on the Bord Altranais live register have a public health nursing remit with families with infants. For this reason, the first two questions (A and B) on the questionnaire requested those not working with families with infants to identify the work they were engaged in and to return the questionnaire without completing any

further questions. A sizeable proportion of respondents did not work with families with infants. Almost one third of questionnaires (n=333) returned were from PHNs who did not have a public health nursing remit with families with infants. In some cases, the respondents were working in the public health nursing service but held a specialised post, or worked in public health nursing management. In other cases, they had left the public health nursing service and were working either as nurses in hospitals, nursing homes or community hospitals or had pursued an entirely different career. Other respondents in this category were retired. In two cases, family members returned letters saying the person to whom the questionnaire had been sent had died. The DoHC (2000b) later identified these same difficulties with the Bord Altranais live register in an examination of "manpower" planning.

In my study 946 (54%) of questionnaires were returned and of these, 615 respondents indicated they had a remit with families with infants. A response rate of 54% is quite acceptable in the context of surveys of this kind (Cohen et al. 2000). Although it is never possible to know with certainty, there is no evidence to suggest that the 54% sample is unduly skewed. There is good representation across health board areas; across rural / urban divide; across length of time in area; and across number of years qualified as a PHN. The returned questionnaires were fully and seriously completed. With the exception of a small number of questions relating to contact at a specific time, all other questions had a response rate of 95% or more. This was a topic PHNs *wanted* to talk about, write about, a topic on which they *wanted* to make their views known.

Attempts to compare the response rate from my study with the findings from a "manpower" study of PHNs undertaken by the DoH (1997b) were unsuccessful. This was mainly because in my study the unit under examination was the individual PHN while the unit under examination in the DoH census was the "whole-time equivalent". Some problems were identified by the DoHC (2000b) with the Bord Altranais register and in the context of this study, their finding that there were many more nurses and midwives on the live register than in health service employment was particularly pertinent. A response rate of 54% represents the *minimum* response rate. Nobody in the PHN population could have been excluded from the sampling frame but some

PHNs who were not working in the public health nursing service were included in the sampling frame. This will have had the effect of depressing the response rate but it is not possible to estimate by how much.

5.3.2 PHN manager questionnaire

A separate questionnaire was developed for PHN managers and this questionnaire contained mainly open-ended questions, similar to those on the PHN questionnaire, that sought information on understandings of quality from the perspective of PHN managers. The use of the same questions on both questionnaires enabled comparison between groups. The sampling frame used for this group was obtained through the superintendent public health nurses' association who provided me with a list of names, addresses and telephone numbers of every superintendent. No sampling frame was available for senior PHNs and consequently, the questionnaire was distributed only to superintendents although it was made clear that senior PHNs (known as assistant directors of public health nursing from 2000) were free to contribute to the response.

Telephone contact was made with each superintendent PHN prior to the distribution of the survey questionnaire. The questionnaire (Appendix 8) with a cover letter (Appendix 9) and stamped addressed envelope was sent to each named superintendent during the week of the 6th September 1999. This letter explained the purpose of the study, the method by which the PHN manager came to be selected, the manner in which their confidentiality would be protected, and the use to be made of the data collected. It also asked them to complete only questions A and B on the PHN questionnaire when they received it. The cover letter also requested that one questionnaire be completed for each community care area (either by the superintendent PHN only or in conjunction with senior PHNs). Although at the time such an approach was consistent with a positivist understanding, in retrospect, I believe the absence of equitable representation at this point for senior PHNs is a limitation of the overall study. In order to maximise the response for this group, all Superintendent PHNs (n = 31) were successfully contacted by telephone during the week prior to 6th September 1999 and the survey discussed with them. A reminder letter was sent to this group on the 26th September 1999 (Appendix 10). Seventy-

seven per cent (n=24) of questionnaires sent to superintendent PHNs were returned and these were analysed, using identification of themes, coding and indexing similar to that discussed below for PHNs' responses to open-ended questions.

5.3.2 Data analysis

The PHN questionnaire yielded both quantitative and qualitative data. Returned questionnaires were prepared for analysis through the identification of variables amenable to analysis using the software package SPSS *8. A coding frame was developed (Appendix 11) and a data file produced. Analyses were carried out using the research aim of describing the public health nursing service provided to families with infants under one year in the Republic of Ireland. In order to meet this aim, descriptive statistical techniques were used to describe the service and elements of it. These comprised individual and system structure characteristics including demographic details, educational preparation, details of health centres, multi-disciplinary working, child health services, service delivery, as well as interpersonal and technical indicators of process in the service. Statistical tests were carried out to examine differences across the service (such as differences between health board areas, differences according to population size) and these were tested using tests of difference (for example, correlation analysis and chi-squared tests). On completion of the statistical analysis, a second analytic approach was used to transform the data so that it could be used to as a basis for the second phase of the study.

Qualitizing quantitative data

Content analysis has been defined as a

> procedure for analyzing written or verbal communications in a systematic and objective fashion, typically with the goal of quantitatively measuring variables (Polit and Hungler 1989 p393).

Some authors (for example, Silverman 2000) are dismissive of content analysis although its use since the beginning of the 20th century (Robson 1993, Fiske 1994) means that approaches to this type of analysis have been well defined and well documented. The transformation of quantitative data into written or verbal communication is much less well developed and detailed analysis of how this can be done is not generally available.

Tashakkori and Teddlie (1998) in identifying "qualitizing quantitative data" as an alternative analytical strategy suggest it is the least common approach in mixed-method study. Qualitizing the quantitative data was considered to be advantageous in this study for the following reasons. They were

- A narrative account would enable theoretical sampling to guide case selection in the second phase of the study.
- By using the data in this way, the results obtained could be used as a starting point for the collection and analysis of other data.
- It would facilitate triangulation of data, methods, and sources.

For these reasons quantitative data, on completion of the statistical analysis, were qualitized. This was done by writing the findings in profile documents according to each section of the questionnaire. A narrative account that described PHNs and their areas, clinic bases, multi-disciplinary teams and child health practices and attitudes were written (see Table 5.3 documents 1-4). These accounts used statistical data to develop "comparative", "holistic", "normative", and "inferential" profiles of the public health nursing service (Tashakkori and Teddlie 1998). Documents 5-8 provide accounts of the analysis of the open-ended questionnaire data according to questions asked.

Table 5.3: Profile documents

	Document title	**No. of words and pages**
1	A preliminary profile of public health nurses and their areas	8,878 words (29 pages)
2	The clinic base	12,597 words (33 pages)
3	An exploration of child health practices and attitudes	9,386 words (23 pages)
4	Public health nurses and the multi-disciplinary team	7,760 words (21 pages)
5	Managers' responses	8,002 words (29 pages)
6	PHN: Enablers of high quality	3,701 words (9 pages)
7	PHN: Impediments to high quality	3,256 words (10 pages)
8	PHN: Descriptions of quality	5,450 words (13 pages)

A number of steps in this process are identified below and an exemplar that illustrates each step is presented in Appendix 12.

Step 1: Each individual variable on the questionnaire was analysed using appropriate descriptive statistics. Where ordinal or nominal data were used, category frequencies and cumulative percentages were calculated. Continuous data were described using means and standard deviations.

Step 2: Each individual variable was reported on separately using graphic representation if necessary. At this stage aspects of the findings that were interesting or unexpected were noted

Step 3: Individual variables were compared with variables from other parts of the questionnaire using statistical inference if necessary. These comparisons differed according to the variable being qualitized. They generally included comparisons between other aspects of structure (for example, levels of deprivation, health board areas), aspects relating to process (for example, making appointments, undressing for weighing and examination), or aspects relating to a variable identified as being associated with service quality (for example, ease of access).

Step 4: The variables were summarised in the context of an overall description of the profile of the area, clinic base, multi-disciplinary team working, and child health processes.

Qualitative data analysis

The qualitative data from the open-ended survey questions were collated in a Word document. All quotes from each of the twelve open-ended questions (three of which asked specifically about quality) were transferred from the questionnaire and, in total, these ran to 97,000 words in almost 300 pages. The first stage of analysis of these data was to read them several times and get an overall sense of the data. An administrative filing system was then created and this done, the main descriptive themes and sub-themes were identified through noting issues and subjects that arose most frequently. This was carried out for each of the questions, "description of quality", "enablers of high quality", and "impediments to high quality". This was also done for each of the three questions from the questionnaire received from managers. Each main theme within each category (description of quality, factors facilitating

high quality, factors impeding high quality) was indexed by coding it A to F (or G, H). The sub-themes within each theme were then further indexed A1, A2, B1, B2 and so on. An example of this coding is provided below, using an example from a respondent to question number 48:

Q48. Please give a short description of what you consider to be "quality" in the public health nursing service to families with infants under 1 year.

In response to that question respondent 369 had written

> Offering a professional service, building up a rapport with families, working with them enabling, encouraging them, the giving of information / knowledge regarding children. Family health, development, supporting / encouraging good parenting skills. Referring where appropriate ensuring that families get the professional help / support they require
> (Questionnaire Respondent 369)
> (Codes applied: A1, B2, A2)

A1: Relationship with family (building up a rapport with families, working with them enabling, encouraging them)
B2: Elements of the service (the giving of information / knowledge regarding children, family health, development, supporting / encouraging good parenting skills)
A2: Link to others (Referring where appropriate, ensuring that families get the professional help / support they require)

Full coding categories are presented in Appendix 13. These categories were then used to describe the public health nursing service, identify key impediments to, and enablers of, a high-quality service. Each one of these was written up in three separate documents identified above in Table 5.3 as documents 6-8.

By January 2001, a full description of the service in respect of the structures and processes and descriptors, enablers and impediments of service quality had been written in eight individual documents totalling almost 60,000 words. At that point three issues were clear.

1. I had a very good understanding of the public health nursing service to families with infants but the absence of a client perspective meant I did not have a holistic and complete understanding.

2. The use of the Donabedian framework had been helpful in describing the service according to a number of different variables. The breadth of the organisational structure within which the service was provided had been described and three phases of process (pre-contactual, contactual and post-contactual) developed. The precise way in which this could contribute to a holistic understanding of service quality remained elusive.
3. The data available to me could be used to assist in making decisions about the identification of the case study sites as well as the areas for investigation within and between sites.

5.4 Transition from phase one to phase two

At the outset, it was my intention to gather data of a more qualitative nature in the second phase of the study, and triangulation had been identified as an appropriate way in which both phases could be merged. On completion of the first phase, I immersed myself in the literature relating to qualitative data inquiry. As I became more familiar with this literature, and having undertaken a period of formal study on qualitative methodology as well as philosophy, I came to understand that the collection of qualitative data was not only a choice of method, but also of methodology. This realisation led me to a greater understanding of the need to move more closely towards an interpretative rather than post-positivist stance. Although some authors suggest that all research involves interpretation (Lincoln and Guba 2000), others associate the interpretative paradigm as being in opposition to the positivist (Monti and Tingen 1999). A number of differences between a positivist and interpretative paradigm have been identified and these range, among others, from

- ontology (from one reality to multiple realities),
- epistemology (from knower and known are separate to value-laden observations),
- purpose (from verification and theory testing to understanding and theory generating),
- researcher (from objective and un-involved to being the instrument and co-creating), and
- method (from control to paying attention to context).

Prior to this, I was already committed to the need to incorporate more than one reality and also to paying attention to context. Two remaining issues now came to the fore. These were the guiding theoretical framework and my own position within the research.

5.4.1 Guiding theoretical framework

Yin's (1994) use of terminology such as "validity" and "reliability" in relation to case study supports a belief that the researcher can be objective and un-involved. Further, his use of a graphic illustration of "fact" where there is convergence of multiple sources of evidence to arrive at a single fact, supports an ontological position of a single reality (p93). These understandings now appeared at odds with my own developing belief system and consequently, I re-visited the literature on case study. Stake's (1978, 1994, 1995) case study approach now seemed more relevant and the use of constructivism to guide case study research was more coherent with my own beliefs. An examination of the literature around this led me to Lincoln and Guba (1985 p82) and their assertion outlined below was particularly compelling in respect of this research.

> Researchers in a variety of disciplines in the social sciences have been and are grappling with social constructivist approaches wherein the contribution of each individual in the context to the creation of a reality is recognized.

A social constructivist approach, it seemed, would enable me take account of multiple realities and, in doing so, recognise and take account of my own position within the research. An explication of my understanding and the use of social constructivism in respect of this study are presented now.

Social Constructivism

The question raised by Ernest (1995) of whether constructivism is one or many schools of thought is pertinent because the literature suggests there are almost as many varieties of constructivism as there are researchers. Constructivism (Ernest 1995), weak and strong constructionism (Schwandt 1994), social constructivism (Lincoln and Guba 1985), radical constructionism (Gergen 1995), and radical constructivism (Von Glasersfeld 1995) have all been used to present an understanding of how knowledge is constructed. Spivey (1995 p314) uses a metaphor

of carpentry or architecture to portray the "building, shaping and configuring of meaning" in constructivism. Ernest (1995) supports this but notes that the metaphor of construction does not mean that understanding is built up from received pieces of knowledge, but argues that knowing is active, individual and personal and is based on previously constructed knowledge. An accommodation of the importance of previously constructed knowledge was particularly important in this study because of the amount of data already available to me.

In a comparison of three epistemological stances for qualitative inquiry, interpretivism, hermeneutics and social constructionism, Schwandt (2000) writes that we are all constructivists if we believe that the mind is active in the construction of knowledge. Constructivists, however, generally subscribe to an exogenic tradition of knowledge where the focus "is on the arrangement of environmental inputs necessary to build up the internal representation" rather than on the person's "intrinsic capacities for reason, logic or conceptual processing" (Gergen 1995 p18). Differences have been identified between social constructivism "which regards individual subjects and the realm of the social as interconnected" (Ernest 1995 p479) and radical constructivism where knowledge is not a representation that exists independently of the knower but is an activity or a process (Von Glaserfeld 1995). A social constructionist approach, according to Schwandt (2000), assumes that meaning takes place as a consequence of interchanges among people, artefacts and the social world, although this does not mean that people do not have ideas themselves but, rather, that people's ideas are ultimately given meaning by their social context. In that sense, it is the social context of meanings that is epistemologically fundamental, not their ideational content.

Confrey (1995) takes issue with this and writes that an emphasis on social interactions can overlook other elements of successful constructions including actions, operations, schemes and representations. Others attempt to accommodate both society and individual by stressing the need for convergence between mental representation and social convention (Rubin 1995). Yet others, (for example, Bauersfeld 1992) take a view that the social constructivist processes are strictly subjective and developed across social interaction. Lincoln and Guba (2000 p166) appear to support this position by placing an emphasis on transactional and

subjectivist epistemology where "individual re-constructions coalescing around consensus" are created through a dialectic approach. The importance of constructed realities being influenced by the social context was of fundamental importance to this study where the influence of the organisational context on the process of the public health nursing service was a key guiding question. This work is guided by Lincoln and Guba (1985) and Stake (1995) and I am, therefore, within the broader constructivist school, positioning myself within a social constructivism paradigm.

The role of language has played a central position in debates about constructivism since its inception (Shotter 1995). Gergen (1995) asserts that there is no independently identifiable "real world" and language is the only reality that we can know. Richards (1995) argues that where a dominant discourse is always used, certain tendencies will always survive at the expense of others. Others find that position unacceptable and suggest that the lived experience of inquirer or respondent should not be "dissolved" into an anonymous field of discourse (Jackson 1989). A balance therefore needs to be struck between accepting that the meaning of a term is in its use, and a belief that meaning only exists in language. In this part of the study both interview and observational data were collected and this does provide some balance. The use of interviews within a constructivist paradigm has been identified as advantageous because they enable the researcher to obtain

> here and now constructions of persons, event activities, organisations, feelings, motivations, claims, concerns and other entities; re-constructions of such entities as experienced in the past and projections of such entities in the future (Lincoln and Guba 1985 p268).

The use of constructivism as a theoretical guide for evaluating service quality has been criticised (Pawson and Tilley 1997). Some of these criticisms are not specific to constructivism per se but are focussed on epistemological differences between qualitative and quantitative methods. More specific criticisms have tended to focus on the practicalities of "co-construction of reality" (Redfern 1998). Nevertheless, Redfern (1998 p470) suggests that

> there are important lessons to be learned from the constructivist approach. The complex processes of human actions and interactions within the programme being evaluated cannot be treated as controllable independent and intervening variables What goes on during the process of a programme is important, that is, the process of reasoning, changing, influencing, negotiating, choosing and so on.

While this study is not focussed on evaluating the public health nursing service, it is concerned with what goes on during the "process" of the service as well as how that process is influenced by the organisational context within which it takes place. A theoretical understanding that can accommodate interactions between the participants (client, PHN, PHN managers) and the context within which they operate is necessary. A social constructivist approach offers the possibility of taking account of the meanings ascribed to tangible events, persons and objects. The (social) constructivist paradigm presented by Lincoln and Guba (1985, 2000) and Guba and Lincoln (1994) provides considerable guidance for the researcher in respect of how such a theoretical perspective can be enacted in the process of research. These authors provided theoretical guidance for this phase of the study.

5.5 Methods Phase 2

Multiple methods are a feature of case study research and, in addition to questionnaire data available from each case study site, individual and group interviews, and non-participant observation took place. Any one of these could have been used as the sole method of data collection and therefore form the substantive focus of this section. Given the constraint on the overall length of the document, however, only key issues relating to each method are presented. My own position within the research is examined below and issues relating to participant selection, data obtained, analysis of the data as well as advantages and disadvantages arising from different methods used are presented.

5.5.1 Position of the researcher

It has been suggested that traditionally, one of the key problems with research is that there is an assumption that "the researcher has no effect on the research environment and equally that the environment has no effect on the researcher" (Bryar 1999 p73) I was particularly aware of this when involved at case study sites and found it important to allow time for reflection following each data collection period. This reflection enabled me to consider the rationale underpinning my own response to issues arising, as well as facilitating me in identifying the effects I could have on the research context. My background as a PHN, PHN manager and as a white, middle-

class mother with an infant meant that I shared some common features with almost all participants in the research. I did not share all characteristics and I was concerned that where differences arose, particularly in relation to social class, level of education, use of terminology, and age, I was able to accommodate them. This accommodation included consideration of my personal appearance, the way in which I spoke, and my general demeanour at all times.

A key criticism of qualitative research is the potential for researcher bias and particularly in interview research where "leading on", "restricting" and "reciprocity" can influence the respondents' responses or the way they behave (Hitchcock and Hughes 1995). Although I was not a PHN manager at the time of the qualitative data collection, I was concerned that PHNs would be inhibited or restricted from being critical of other managers or of identifying areas where they felt their own practice was not of a high standard. There was no shortage of critical comments about the service and some participants, including PHN managers, openly welcomed an opportunity to raise issues with me because they felt that by doing so within this research context, it would make issues visible to others in a meaningful way. In general, where problems related to practice were recognised (e.g, a lack of on-going education, small amounts of contact with certain families), these were attributed by PHNs and PHN managers to the organisational structure. While these raised issues of "structure" and "agency", it also demonstrated that PHNs were not inhibited or restricted in their responses. In respect of clients, I was aware from the literature (McKim 1987) that admitting non-medical concerns or problems with infants to me as a PHN could be a problem because of underlying assumptions of parental inadequacy. Again this did not appear to be an issue and many problems, especially related to tiredness and its implications, were discussed openly. Sometimes, PHNs did not recognise problems in their own practice (for example, using a Manchester rattle at a level that was too loud, giving incorrect information) and this did raise some ethical issues in respect of my role as (PHN) researcher.

Being open about my background meant I was able to empathise with PHNs, PHN managers and clients on the difficulties faced in their situations. I was conscious that the interview guide did not replace my role as the "instrument" through which data

were collected ("researcher as instrument") and I remained flexible and responsive "to the unexpected emergence of unanticipated twists and turns in the content of the interview" (Maykut and Morehouse 1994 p99). This left considerable scope for further questioning within each interview and while engaged in interviewing, I used various probing techniques and this is likely to have limited the impact of "leading on" (Patton 1990, Bernard 2001).

I made a conscious effort to diminish the likelihood of "reciprocity" by guaranteeing anonymity and confidentiality of all data. While establishing a rapport with the interviewee(s) I remained "neutral" with regard to the content of what I was told. In such circumstances, participants are less likely to "tell you what you want to hear" (Patton 1990). Further, the use of multiple methods in the case study research enabled me to reflect on what was being said and draw on other sources of material to construct an understanding of what was meant.

In other ways, the particular characteristics I brought to the research could be considered as having a beneficial effect. I was aware that interviews took place within a "context" and having been part of this context, I was able to take this into account as well as empathise with participants Participants did not have to go into great detail about some issues (for example, the importance of "the green card", the "birth notification", the problems of lack of child friendly facilities in urban areas) because I was already personally familiar with these. This was particularly the case in relation to terminology used (e.g. acronyms for other professionals (AMOs for area medical officers or the use of a metaphor e.g. "the blues" for post-natal depression) which, to the "outsider", might have required some explanation. By demonstrating an awareness and knowledge of these issues, I was able to able to "gain entry to the group" (Morse 1994) although I was alert to the possibility that I would not be told something because it would be assumed I already knew (Hitchcock and Hughes 1995).

In summary, the positioning of the researcher within the research is a key area for exposition when qualitative data are collated because the "researcher as instrument" is a key feature. In this study, my positioning was influenced by my personal and

professional characteristics. I believe that my own characteristics facilitated a positive positioning within the study.

5.5.2 Participant sampling

There is much discussion about differences between sampling types and, in particular, between selective, purposeful and theoretical sampling (Patton 1990, Coyne 1997, Silverman 2000). Silverman (2000 p105) writes that the only difference between theoretical and purposive sampling is that the "purpose" behind "purposive" sampling is not theoretically defined. Patton (1990), however, presents purposive sampling as an umbrella term for some sixteen sub-types of sampling and these range from extreme "deviant case sampling" to "theoretical sampling", "snowball" or "chain sampling" to "convenience sampling". Coyne (1997 p625) agrees with Patton's understanding of purposive sampling as an umbrella term for different types of sampling techniques.

A variety of sampling procedures was used in the study. Prior to the development of the survey questionnaires, five group interviews were held with PHNs (n = 3) and PHN managers (n = 2) from four community care areas within two different health boards. These were selected on the basis of "seeking exceptions by testing variation" and therefore met the criteria for sampling according to confirmation (that all public health nursing services were the same) and disconfirmation (or different) (Patton 1990 p183). Initially, these interviews were used to inform the content for questionnaire development and, as they were generally unstructured, it was possible to re-examine these data in conjunction with other interview data generated. The sampling strategy for PHNs involved in the groups can be understood as a snowball-type sample because superintendent PHNs identified the PHNs who subsequently took part. I had made direct contact with the superintendent PHNs in four community care areas in two health board areas, and asked for permission to conduct a group interview in each community care area. I also asked if they would be willing to take part themselves and in both health board areas they indicated they were. Although volunteer sampling such as this can be problematic, the unstructured nature of these interviews limited difficulties around "reciprocity".

The documents, from the PHN and PHN managers' questionnaires, identified in Table 5.3 above (p100), were used to extract important characteristics of the public health nursing service and these were used as the basis for the selection of case study sites. This can be understood as theoretical sampling defined as

> a process of data collection whereby the researcher simultaneously collects, codes and analyses the data in order to decide what data to collect next (Coyne 1997 p 625).

Key characteristics used to inform sampling related to

- geographic characteristics (rural/urban, deprivation, size of population)
- PHN characteristics (level of education, length of time in area)
- PHNs' constructions of the quality of the public health nursing service provided in that particular area.

Advantages in using this type of approach were that I could build on the knowledge already constructed and I could choose sites that "would maximise what I could learn" (Stake 1995, p4). Thirty four percent (n = 204) of PHNs in the national survey indicated they were willing to take part in further study and therefore many potential sites were available to me. Stake (1995 p4) writes that in identifying such sites it is important to identify "sites that are easy to get to and hospitable to inquiry" because of the necessity for prolonged engagement. Consequently, case study sites that met a range of characteristics identified above, but that were also geographically convenient (within two community care areas), were identified. A number of discussions were undertaken with PHNs (n = 10) and five sites where the PHN and PHN manager were agreeable were identified. Between the time of this agreement and ethical approval, one PHN had moved and consequently, four sites were included.

Sampling within the case

The inclusion of participants within each case study site drew on different sampling strategies. PHNs and PHN managers who were interviewed were selected on the basis of the case study site area and were therefore theoretically selected. PHNs identified potential clients for individual and group interviews and the basis of this selection can be understood as snowball-type sampling. PHNs were asked to tell parents about the study and give them an information leaflet about the study (Appendix 14). This

approach was considered the most appropriate way of identifying clients because PHNs would be in a position to know which clients were likely to be "information rich". The disadvantage of this sampling strategy was that the potential for putting forward for interview only people who were very positive about the service would decrease the richness of the data. PHNs however, did not only put forward people who had positive experiences and, in two cases, clients with very poor experiences were identified.

General inclusion criteria for clients were mothers or fathers (or both) who had an infant under one year of age living in the area where the public health nursing service was being provided. PHNs were asked to identify clients on the basis of the definition of a good informant described thus by Morse (1994 p228):

> a good informant is one who has the knowledge and experience the researcher requires, has the ability to reflect, is articulate, has the time to be interviewed and is willing to participate in the study.

A number of exclusion criteria were identified for clients and these were

1. Parents who had insufficient experience of the service by virtue of the age of the infant: (for example, if they had only one infant and that infant was under six weeks of age) because they would not meet the criteria of good informant.
2. Parents whose infant was more than one year because they would not meet the criteria for the group under study.
3. Parents of families where there were child protection issues because the service provided to these families would be different to that ordinarily provided.
4. Parents of families where there were special needs because the service provided to these families would also be different to that ordinarily provided.

Two issues arose in respect of sampling of clients. Firstly, all clients who agreed to take part in the group interviews were mothers. On pursuing this with the PHNs, the rationale centred mainly on the PHNs' lack of contact with fathers. The lack of inclusion of fathers in the study is a limitation although in the absence of contact they would not have met the criteria for being "information rich". Secondly, the criteria for identifying good informants described above, coupled with the exclusion criteria, may have precluded the involvement of some client groups who had greater or lesser

levels of need. This is also a limitation although the need for good informants, rather than representativeness, was the principle guiding participant selection.

The subsequent involvement of clients in group interviews was a problem in two case study sites. At one group interview only three clients arrived (Case study site 3) although eight had indicated their willingness to attend. Two other clients agreed to be interviewed but one was not available at a time when others were and the second mother asked to be interviewed individually. Consequently, two individual interviews were held in case study site 4. In case study site 3 only one participant came to each of two group interviews arranged at different times and I subsequently made arrangements to carry out individual interviews with five clients. The apparent unwillingness of clients to attend a group interview is noted here and is a limitation. When I asked one mother who declined to be involved in a group interview but was willing to take part in an individual interview, she said "I find one-to-one is easier. I'm not a group person". Table 5.4 provides an overview of the various data types and sources.

Table 5.4: Case study data types and sources

	Group interview	**Individual interview**	**Non-participant observation over time**	**Survey questionnaire**	**Note**
Case Study Site 1	1: 8 client participants	1 PHN 1 PHN manager	2 days	N = 2 1 PHN and 1 Manager	
Case study site 2	1: 4 client participants	1 PHN	2 days	N = 1 PHN	Management for these case study sites is the same: Both director and assistant director of PHNs were interviewed individually and 1 survey questionnaire returned.
Case study site 3	None - 2 group interviews arranged	5 clients 1 PHN	2 days	N = 1 PHN	
Case study site 4	1: 3 client participants	2 Clients 1 PHN	2 days	N = 2 1 PHN and 1 Manager	
Sub-total	N = 3 (15 clients)	N = 12 Clients and PHNs + PHN managers (2) - see note	8 days	Survey questionnaire = 6	
Total	**N = 3**	**N = 14**	**8 days**	**6 questionnaires**	

Non-participant observation involved sampling various aspects of the public health nursing service at each site. Although I remained flexible throughout, certain data, theoretically driven, were collected at each site. I was unable to gain permission to accompany all four PHNs on home visits and while I recognise this as a limitation I believe the many other data sources used can balance the absence of data from this aspect.

Data collected through non-participant observation from each case study site included

1. The physical setting: including the health centre environment and the geographic location of the area.
2. The human setting: The number and type of people working in the health centres, in the public health nursing service, the general characteristics of the overall population and those of families with infants.
3. The interactional setting: Formal and informal, planned and unplanned, verbal and non-verbal interactions between PHNs and clients in the clinic and general area surrounding the clinic.
4. The service setting in terms of material, equipment and other resources, availability of the service.

5.5.3 Interviews

Much has been written about interview research. Some authors differentiate on the basis of the amount of structure provided (Patton 1987, Anderson and Arsenault 1998, Bernard 2001) while others differentiate on the basis of the depth of the approach, and the extent to which the interview is standardised across respondents (Fontana and Frey 1994, Punch 1998). "Structure" includes a continuum that ranges from unstructured to structured. Some authors regard structured and directive as one and the same. Hitchcock and Hughes (1995) write that unstructured interviewing is a misnomer because all interviewing requires a degree of direction from the researcher Other authors, however, regard "structured" as the extent to which questions are pre-prepared according to content and syntax (Patton 1987, Polit and Hungler 1989). Patton (1987) identifies four categories and these are informal conversational, interview guide-approach, standardised open-ended, and closed quantitative. Others categorise on the basis of purpose (evaluation of a person, hypothesis testing,

sampling respondents' opinions (Cohen et al. 2000)), theoretical underpinning (naturalism, ethnography, phenomenology or grounded theory (Silverman 2000)), or numbers included (individual, group (Marshall and Rossman 1995)). The various strengths and weaknesses of methods used are presented in Table 5.5.

Table 5.5 Strengths and weaknesses of methods used

Type	Description	Strengths	Weaknesses
Informal interview	Characterised by a total lack of structure and control (Bernard 2001)	Relevant and salient questions arising from context (Patton 1990) Allow flexibility and facilitate responsiveness (Polit and Hungler 1989) Enable understanding of how core activities are constructed (Punch 1998)	Difficult to take notes Data organisation and analysis can be difficult
Guided Interviews	Includes a list of questions or issues that are to be explored in the course of an interview (Bernard 2001)	Increase comprehensiveness of data (Patton 1987) Enable comparisons across groups (Anderson and Arsenault 1998) Allow in-depth analysis and pursuit of details (Cohen et al. 2000) Understand meanings people hold (Marshall and Rossman 1995) Gaps can be anticipated and closed (Patton 1990)	Important topics may be inadvertently omitted Flexibility may mean results are less comparable
Group interview	A research technique that collects data through group interaction on a topic determined by the researcher (Morgan 1997)	Efficient method of data collection (Fontana and Frey 1994) Valuable where little information known Exploring complex concepts (Rantz et al. 1999)	Issues relating to internal validity Less control (Marshall and Rossman 1995 Difficulties in analysis (Reed and Roskell-Payne 1999) Homogeneity of participants in nursing research Moderation issues
Non-participant observation	Systematic recording of events in the social setting (Marshall and Rossman 1995 p79)	Powerful tool for gaining insight Suitable for frequent events (Robson 1993) Maximises the inquirer's ability to grasp motives, beliefs, concerns Allows the inquirer to see the world as his/her subjects see it Permits the observer to use himself as a data source Allows the observer to build on tacit knowledge, both own and that of group members (Lincoln and Guba 1985)	Difficulties in access (Punch 1998) Ethical issues relating to Role of researcher Portrayal of role to others Portrayal of purpose of evaluation (Patton 1990) Social Dynamics during observation (Patton 1987)

Group interviews have become more common in nursing in recent years and they have been used to examine both service quality (Rantz et al. 1999) and public health nursing (Butler 1996). Some authors differentiate between focus group and group

interview while others do not. Fontana and Frey (1994), for example, report that "focus group is taken to mean very specific questions about a topic are asked" and group interview "is the systematic questioning of several individuals simultaneously in formal or informal settings" (p364). Morgan's (1997 p6) definition, however, that focus group discussions are "a research technique that collects data through group interaction on a topic determined by the researcher" appears to incorporate both group and focus group definitions presented above by Fontana and Frey. In contrast with Morgan (1997), Patton (1987) writes that this research technique is not a discussion (with the purpose of problem solving) but rather an interview. Others (for example, Punch 1998) support Morgan in referring to it as a discussion and differentiate it from other research methods on the basis of the numbers that take part. There is no agreed number of participants for a group interview and numbers suggested range from 3-5 for mini-group interviews (Anderson and Arsenault 1998 p202) to 5-10 for focus group interviews (Morgan 1997).

A key assumption underpinning group interviewing as a method is that an individual's attitudes and beliefs do not form in a vacuum and that people need to listen to others' opinions and understandings so that they can focus on their own (Marshall and Rossman 1995, Reed and Roskell 1997). This understanding of group interview makes them particularly useful for a study underpinned by constructivism where both social interaction and dialogue are important elements. The title that best represents the group interviews undertaken here are "mini-group interviews" because, with the exception of one group interview all others had fewer than five participants (Anderson and Arsenault 1998). They are identified as interviews because the role of the researcher is recognised as having influenced the proceedings.

Process of interviewing

I felt reasonably confident prior to undertaking the study that I had sufficient cognitive ability in respect of the subject matter of public health nursing. Having successfully completed an ethics application I was also familiar with the ethical issues to be taken into account when conducting the interviews. Issues relating to group moderation were considered and, despite having some knowledge of individual and group communication processes, I carried out two pilot group interviews. One

group interview was carried out with PHNs who were retired (n = 4) and the other with mothers of children (n = 6). These allowed me to get used to moderating and facilitating groups, using a tape recorder and to minimise the risk of "stage fright". Reflecting on the tapes with another researcher who had had more than ten years post-doctoral experience enabled me to identify problems arising from jumping from one topic to another, giving advice (rather than active listening), and summarising and closing off too early (Cohen et al. 2000). It also helped me in developing an interview guide for use with both PHNs and clients.

Prior to the interview I had already spoken to each participant by telephone during which I answered any questions they had and confirmed arrangements. Interviews were held at sites convenient to the participant(s) including hotels, local halls, health centres and other health board offices. I ensured that I had enough consent forms, tape-recorder and tapes, as well as paper for taking notes before I went to the interview. The social context for interviewing is important and, on arrival, I welcomed participants, checked what they wanted to be called and attempted to create a general feeling of welcome. This also allowed me to get some demographic information. Refreshments were provided and I again went through the purpose of the study. Written consent was sought from participants as well as permission to use the tape recorder. Although I had concerns that participants would not speak freely when using a tape-recorder, advantages identified (for example, completeness of data, opportunities for review, non-verbal cues such as silences, and being able to seek reliability checks) outweighed these (Lincoln and Guba 1985, Polit and Hungler 1989, Hitchcock and Hughes 1995). Requests for data to be "off the record" were respected.

The style of the interviews was interactive and I indicated at the beginning that I would be happy to answer any questions put to me by the interviewee(s) at the end. It has been suggested that this can reduce the power differential between interviewer and interviewee although it is unlikely that such a differential can be eliminated altogether (Maykut and Morehouse 1994). Participant(s) were asked to assist me in setting the agenda by first, asking them to identify ground rules relating to confidentiality, anonymity and respect. Following this I indicated that I had some

areas I wanted to cover and, if these areas did not arise in the course of the interview, I would come back to them. Participants were then asked if they had specific areas they wanted to discuss and these were then added to the interview guide (if they were not already on it). PHNs and PHN managers were more likely to identify specific areas they wanted to discuss such as problems with the health centre and the influence of paperwork on the service. Clients also asked to include certain areas (such as waiting times at the clinic, frequent changes of personnel in one area). Participants were told they did not have to answer any question they did not want to and at group interviews, were told that it was neither necessary to reach a consensus nor to disagree. They were also advised that there were no right or wrong answers. In order to assist with the interview as well as transcription process, at the start of each group interview, I drew a table and named participants according to where they sat. During the interview, I called participants by name as often as possible, using phrases such as "Mary, you wanted to say something there?", "Yes Maureen?", etc.

Although I took notes at the interviews, it would have been more preferable for two people to be there. A "funnel" (less structured approach emphasising free discussion initially and then a more structured discussion of specific questions) strategy identified by Morgan (1997) was used for each of the interviews. A separate interview guide was prepared for each stakeholder group and each contained between four and six questions. These interview guides are in Appendix 15. At the end of each interview, I asked each participant whether there was anything they wanted to say that had not come up in the course of the conversation.

Every effort was made to ensure "fair" representation of differing views within group interviews using "direct phrases" ("Mary, what do you think about what Maureen just said?"); "drawing out" ("what did you think of that?", "there are a couple of people we haven't heard from yet - do you have any opinion on this, Mary?", and "can you describe that for me?"); and body language. In keeping the conversation going, I used phrases such as "what I hear you saying is" and different kinds of probes. If people spoke together I intervened and, if necessary, re-set the ground rules. The numbers involved in the group interviews were very manageable and there was only one interview where the power differential between participants had the potential to be a

problem. I dealt with that by deferment using phrases such as "can you hold that point and I will come back to it after I/ we have Angela's view". I took a position of "learner" during the course of the interviews using phrases such as "can you give me an example?" or "I'd love to hear more about that".

Each interview lasted between thirty and ninety minutes and I was conscious of interviewer and interviewee fatigue (Barriball and While 1999). "Member checking", summarising what had been said while using respondents' own words took place at the end of each interview (Lincoln and Guba 1985, Cutliffe and Mc Kenna 1999). I used phrases such as "I think the main points you made were..." and "does that sound right to you?". While allowing participants to check the validity of my constructions, it also resulted sometimes in additional comments. At the end of each interview, I thanked people for coming, reaffirmed the confidentiality agreement, and asked whether they would be interested in my contacting them as the analysis progressed. I also gave them my card and asked that if they thought of anything else that might be of interest to contact me. I was in contact with some of these later when checking categories and descriptions and while I did get additional information at those times, no mother telephoned me with additional information. Where addresses were available, interviews were followed up with a formal letter of thanks.

5.5.4 Observation

Observational data has been categorised according to the type of data collected (qualitative, quantitative) (Punch 1998), the degree of structure (unstructured, semi-structured and structured) (Lincoln and Guba 1985), and the extent of involvement of the researcher (Adler and Adler 1994). Gold's (1958) classic typology is cited by many authors (Lincoln and Guba 1985, Patton 1987, Adler and Adler 1994) and includes four researcher modes. These are complete participant, participant as observer, observer as participant, and complete observer. Although I had gathered substantial amounts of data, I felt that in view of the advantages identified by Lincoln and Guba (1985), some non-participant observation would greatly enhance my understanding of each case. The direct negotiation of access to the public health nursing service in each area was through the PHNs and this meant that co-operation, trust and rapport underpinned access to the site.

My role in non-participant observation is best described as *a partial onlooker* because although I did not take up any role within the organisation, I was visible within the environment and it is likely that I had some influence on it (Patton 1990). In keeping with a constructivist approach, a reciprocity model of mutual trust, mutual respect and mutual co-operation was used. In doing so, PHNs and clients were able to identify a number of benefits to themselves in taking part, including being able to talk about the service and the possibility that things would improve when the study was published.

I was an overt observer. People were told that observations were being made and that I was the observer. I was careful not to be over-identified with a single subgroup (for example, PHNs) because of the potential for influencing other participants' involvement (for example, clients). This did not seem to be a problem, however, and when the PHN was not in the vicinity, clients spoke freely to me about their constructions of service quality. Specific areas for observation arising from my prior knowledge of the public health nursing service had been identified. Consequently, "selective attention" was not an issue. I guarded against "selective encoding" (where observations could be coloured by expectations) by being reflective throughout (Robson 1993). Two of the questions that guided data collection up to that time continued to guide me at this point and these were

- What does this mean for the enactment of the process of the public health nursing service?
- How does the organisational structure of the public health nursing service influence this?

Observation as a data method was complementary to survey and interview data and formed only a small part of the data collected. The duration of the observations was limited to two days at each site and following observation, field notes were written up within twenty-four hours (see Appendix 16).

I have given some consideration to whether conversations that took place during the course of this study should be considered as a data source. During the course of the study, particularly when non-participant observation and member checking took

place, informal interviews and conversations also took place. Comments, clarifications and understandings arising from these contributed to my construction of quality in the public health nursing service. The informal nature of these interviews and the multiplicity of locations at which they took place meant that not only were they not tape-recorded but contemporaneous notes were often not possible. Consequently, no formal notes of these interviews were available but summaries, where relevant, were recorded in the "field notes" and "write-up" notes taken. They are identified here as a data source because I believe it is important to identify and acknowledge all sources that contributed to the construction of service quality which emerged in my study.

In summary, this phase of the study involved observation, individual and group interviews. The reflexive nature of the study ensured that some data analysis took place simultaneously with data collection. A more formal analysis of the data also took place and this is discussed below.

5.5.5 Data analysis

More than twenty-six varieties of qualitative data analysis have been identified and decisions about the selection of any single method can be complex (Tesch 1990). Lincoln and Guba (1985 p335) note that "the method of constant comparison provides an excellent fit with the "continuous and simultaneous collection and processing of data" and this method is also coherent with Stake's approach to data collection and analysis.

1. Following all interviews, I wrote up the notes taken within twenty-four hours and this gave me an opportunity to reflect on the process of the interview (see Appendix 17). In these reflections, I paid particular attention to my overall impression of how the interview had developed, of issues that appeared to create some difficulties, and of anything unusual that had happened in the interview.
2. For the taped interviews, the next step involved listening to each tape at least three times. This allowed me to familiarise myself with the nuances and content of each tape and to reflect on each one. While listening to the tapes, I noted ideas

as well as confirmation of issues that had been identified in previous data collection.

3. All tapes were transcribed. Bryman and Burgess (1994) caution about the loss of important nuances when tapes are transcribed and for that reason, as well as for reasons of confidentiality and anonymity, I transcribed each tape myself. While doing so, I kept memos as a means of capturing ideas, views and intuitions at all stages of the data process (Appendix 18) (Robson 1993).
4. Following transcription, I read through each transcript several times to get an overall sense of the data and by the time I started coding, I felt very comfortable with the interview data. As data collection took place simultaneously with data analysis, the categories identified during the course of the listening, transcription and coding were used to inform on-going data collection. Early on in the coding process, I asked another researcher to categorise a small section of one interview and this gave me opportunities for discussion and reflection. I was also able, to some extent, to check emerging categories with study participants.
5. In the main I operated a process of open coding where a provisional name was given to each category, although I was, of course, influenced in coding by the understanding that I already had from previously constructed knowledge. This meant that as new issues arose I was readily able to recognise them in other interviews. This formed the basis for the conceptual and descriptive categorisation process.
6. Comparing and contrasting were used as the two main tools to form categories, establish the boundaries of the categories, and assign data segments (Lincoln and Guba 1985). Each new piece of data (unit) was compared with others in the category to ensure it was an appropriate fit. Categories remained flexible throughout and were modified and refined until a satisfactory system was established. This done, the data from the group interviews with PHNs and PHN managers were coded according to these categories. A total of 52 categories were identified (see Appendix 19).
7. The use of computers in data analysis has been criticised on the basis that they are "antithetical to intuition, insensitive to nuance and meaning and resistant to non-numerical information" (Tesch 1990 p168). Initially, I did not intend to use a computer software package but I was soon overwhelmed by the amount of data

available to me and consequently, I used a version of Nud*ist, N4Classic. Following a period of familiarisation and training with the software package, I prepared and entered the data with corresponding codes into a database file (Appendix 20). The spread function was used to maintain the context over a period of paragraphs, and data were coded by paragraph rather than by line because of difficulties identified by Reed and Roskell (1997) in respect of retrieval of group data. A category relating to agreement / disagreement was created for group interviews so that these areas could be addressed. Using computer software had a number of advantages and it allowed me to retrieve data and search for patterns according to category, stakeholder group and also by case study site. Further, my engagement with the data prior to the use of N4Classic ensured that I was familiar with all aspects and the issues raised by Tesch above were not found to be a problem.

8. Initially, all data related to each category were retrieved and copied in to a word processing file. Within each category file, quotes relating to the main points of the category were identified and summarised in a few words. This enabled a number of sub-categories to be formed. These sub-categories were then described and through this, a comprehensive, useful and universally applicable definition of each category identified (see appendix 21).
9. A further period of reflection took place at this point and I started "getting the ideas down, in order to tap (their) initial freshness" and "to relieve the conflict" (Lincoln and Guba 1985 p342). I also returned to the memos I had made and to the original coding of the documents, reading through and reflecting all the time. I have found that the act of writing facilitates greater clarity in respect of theoretical development. In some ways, this writing can be likened to the "theoretical memos" suggested by Glasser and Strauss (cited in Lincoln and Guba 1985). The extent to which my thinking developed through writing, coupled with the extent of the writing itself, leads me to believe that "memo" is an inadequate term to describe this work. Throughout this period, many different documents isolating ideas and themes were written and re-written in the constant search for new understanding and deeper meaning.

Triangulation

At this point also, I started to draw on other data collected through observation, field notes, and the qualitized data from documents developed following analysis of the PHN and PHN managers' questionnaires. Issues around triangulation then arose. In research, triangulation has been defined as

> the use of two or more methods of data collection in the study of some aspect of human behaviour (Cohen et al. 2000 p112)

Different types of triangulation have been presented. Denzin (1978), cited in Hitchcock and Hughes (1995), identified four namely

- Data triangulation: data are collected over a period of time, from more than one location and from or about more than one person.
- Investigator triangulation, which involves the use of more than one observer for the same object. Hitchcock and Hughes note that this also includes member checks.
- Theory triangulation which involves the use of more than one kind of approach to generate categories of analysis.
- Methodological triangulation: the use of more than one method of obtaining information.

Other authors identify additional areas of triangulation including triangulation of communication skills (Begley 1996) and interdisciplinary triangulation (Janesick 1994). Triangulation has been advocated as an approach to enhancing credibility of the study (Lincoln and Guba 1985, Hitchcock and Hughes 1995) although not all authors are in agreement about this. Some have suggested that triangulation does not ensure consistency or replication (Patton 1990) or reduce bias by bringing objectivity to research (Fielding and Fielding 1987). These criticisms are, however, rooted in a positivistic use of triangulation to identify a single reality or truth (Begley 1996) and in its use as a mechanism for confirmation (Redfern and Norman 1994). Yin (1994 p92) draws on this understanding when suggesting the use of triangulation in his approach to case study research. He writes

> the most important advantage presented by using multiple sources of evidence is the development of converging lines of inquiry ..... aimed at corroborating the same fact or phenomenon.

In this study, I do not subscribe to this understanding of triangulation but rather, understand the use of triangulation to be towards "working to substantiate an interpretation or to clarify its different meanings" (Stake 1995, p173). This understanding uses triangulation for completeness (Redfern and Norman 1994) and is more in keeping with a study underpinned by a constructivist paradigm.

In the analysis, triangulation of data sources and types was used to build up a comprehensive picture of the public health nursing service by teasing out relationships and probing issues. Mason (1994 p99) writes that, when considering how to *use* data to develop an analysis, it is necessary to work out the answers to three sets of questions. These are

> Data on what? *What* do these data tell me about and . . . what can they *not* tell me about?
> Strength of claim. *How well* do these data tell me this?
> Integration of data. How best can I integrate and make sense of different forms of qualitative data?

The qualitization of the quantitative data meant that it was possible to draw on these documents as a literary source similar to other data sources and this was also true of the fieldwork notes. Many areas of overlap between different sources were identified, and issues arising in one data type were similar to those in other data types. The strength of the claim was judged on the basis of the extent to which I felt I had a full and complete description and understanding of each individual category as well as its positioning within the overall context of quality in the public health nursing service to families with infants. In writing a thick description of the public health nursing service, I was able to compare and contrast, through "constant comparison" various categories, and eventually, I was able to integrate a number of categories. Seven categories emerged in respect of the process of the public health nursing service. These were

1. initiation (pre-contactual)
2. convergence (pre-contactual)
3. preparation (pre-contactual)
4. opening (contactual)
5. interacting (contactual)
6. closing (contactual)
7. following-up (post-contactual).

I then wrote a description of these categories and gave them to all PHNs and PHN managers who had taken part in the case study sites and to clients who had indicated they were interested in further contact (n = 9) (Appendix 22). I was interested in whether this was "what their experience was like" and secondly, whether this meant anything to them in terms of service quality. Stakeholders confirmed each of the categories although there was some discussion about the category "follow-up" with clients. Most PHNs and PHN managers had not given any previous thought to the "opening" and "closing" categories of the contactual moment but they were not in disagreement that these categories existed. With each of the other categories, however, they told me about further incidents that had taken place and so, I understood that this meant these categories made sense to them.

At that point, the situation in respect of service quality was less clear. Stakeholders could see that an explication of the process did provide a mechanism for examining service quality but equally, they said that it did not account for everything to do with quality. One PHN said "I can see now that this is a very clear process but I still have a lot more clients to see than Mary so the quality of my service is still worse than hers. How is this going to help me?".

This led me back to the second guiding question: How does the organisational structure influence the process of the public health nursing service? A re-examination of all the documents where quantitative data had been qualitized as well as developmental documents, field notes and interview data then took place. Simultaneously, I focussed on the case study sites as individual and comparable units and asked questions of the data such as "what are the similarities and differences between these case study sites in terms of the organisational contexts and the process I have identified?". Two concepts emerged immediately and these were "time" and "knowledge". Indeed, these two concepts had been present almost from the beginning of my study and were apparent during the literature review. I want to draw attention here to the use of the term "knowledge" which can be problematic from a constructivist perspective because of interpretations of "knowledge" as "an object", "a finite issue" or "goal", rather than, as a process (Bauersfeld 1995). Other alternative terms were considered, among others, information, facts, data, comprehension,

consciousness, and awareness. None of these terms, however, capture the fullness or comprehensiveness of the term "knowledge" as presented by key stakeholders in this study. I made a decision, therefore, to use the term knowledge. In using the term however, it is not my intention to present it as an object but rather, in keeping with a naturalistic paradigm, to be faithful to stakeholders' understandings.

The two concepts of time and knowledge combined, however, continued to provide only a partial understanding of service quality and other influences also impacted on it. A holistic understanding remained elusive. Constant reflection at this point as well as a return to the fifty-two categories that had emerged during analysis enabled the identification of two further concepts, and these were "environment" and "communication". All my efforts at this point were focussed on accounting for all the data that influenced service quality and the final two interviews with clients were completed at around this time. It was helpful to understand "environment" as being beyond a building, such as a health centre, and to include a human component (for example, the presence of other service providers, the population served) and other material resources (health education literature, weighing scales). "Communication" as a method for the way in which PHN and client interacted as well as the referral and feedback process between the PHN and others was then identified. The final theme to emerge - "orientation" - was more difficult to identify because in some ways it crossed all concepts. In uncovering this, I returned to the case study sites and compared and contrasted each one in terms of knowledge, time, communication and environment. I then asked myself a question "if I take all these into account, what is left that differentiates between the service quality at each site?". This question led me to the theme "orientation" and, in seeing its contribution to understanding quality in the organisational context as well as the process, I realised its significance in making the model complete.

Having identified these concepts, I returned initially to the PHNs and PHN managers as I felt they were more likely to be able to identify the organisational influences on process. There was general agreement about the first four concepts, those of time, knowledge, communication and environment. There was some discussion about whether "communication" could be "co-ordination" although when it was understood

as communication, it was more encompassing and could include communication between PHN and client, as well as for example between the PHN and others in the multi-disciplinary team. The theme relating to orientation was more difficult to explain and clarify. I was able to illustrate this theme by using a common example of where people with leg ulcers could be scheduled for visiting when the PHN for the area was on leave, but families with infants could not. That suggested a policy orientation that favoured clinical nursing over child health work.

Following discussion with the PHNs and PHN managers, I made contact with clients (n = 5) and presented the five concepts to them. The clients very quickly recognised these concepts as being relevant to the way in which they experienced the process. They also noted that these were relevant to the consequences (outcomes) of their involvement with the PHN. One client said "you're right - if any one of them are missing you don't think it's good". This raised questions about whether these concepts could also be understood in terms of the links between process and outcome.

To summarise, seven stages of the process of the public health nursing service to families with infants emerged from the data. These steps were identified as initiation, preparation, convergence, opening, interacting, closing and following up. Five concepts of time, knowledge, communication, environment and orientation were identified as important influences at different points in each of these steps. These five concepts can emerge from the organisational context within which the service takes place and their influence during the process can determine how quality in the service provided is constructed.

5.6 Ethical considerations

Ethical issues "saturate all stages of the research process" and start with the researcher's choice of topic (Punch 1998 p281). I believe it was ethical to choose to study quality in the public health nursing service to families with infants because the dearth of research about the service means that each stakeholder group can potentially benefit from this work. Other ethical issues revolve around consent, privacy and confidentiality of data (Punch 1998) and these are now discussed.

5.6.1 Consent

At every stage of this study, informed consent was a key element of data collection and in particular, I was concerned with issues of voluntarism, full information and comprehension (Cohen and Manion 1994). At each stage of data collection, I informed participants of the purpose of the study, the procedures to be followed, the anticipated time commitment, and my contact details if they wished to ask any questions about the study. All participants in the study who were interviewed or observed actively consented, having been given one or more opportunities to withdraw (Appendix 24). For example, time elapsed between agreement to take part in the study and interviews being carried out and this provided an opportunity for withdrawal. Clients were initially asked to pro-actively engage with the study by making contact with me rather than my being given names to contact them. While this had implications for recruitment, I considered the ethical issues of consent and confidentiality to be more important. A participant information sheet was given to clients prior to the initial contact and, when they telephoned me, I gave them further information about the study as well as an opportunity to withdraw at that point.

A letter that accompanied the questionnaire sent to each PHN and PHN manager provided a brief explanation of the study and also gave two telephone numbers (one mobile, one landline) where I could be contacted if they had further questions. PHNs and PHN managers were free to contact me at any time and a small number did so. PHNs involved in the case study sites gave consent at a number of different stages of the study. These included indicating their interest in taking part in further study when returning the questionnaire, when I was negotiating case study site access and also in agreeing to be interviewed formally and informally where both PHNs and managers signed consent forms. A full copy of the proposal being submitted for ethical approval was made available to each PHN and PHN manager involved in the case study sites. Although it was made clear that they were not under any duress to take part and could withdraw their consent at any time, none did so.

Cohen et al. (2000 p316) write that

> Observation places the observer into the moral domain. It is inadequate simply to describe observation as a non-intrusive, non-interventionist technique and thereby to abrogate responsibility for the participants involved.

Ethical issues surrounding observation have been subject to considerable discussion (Patton 1990, Adler and Adler 1994, Punch 1998, Cohen et al. 2000) where deception can be a key feature. In this study, observation was overt and I was visible as a researcher in the study setting. I provided as much information as possible to participants and asked PHNs to inform each client about my presence and purpose. Opportunities were provided to ask questions and to withdraw from the interaction if they choose. One client did ask to talk to the PHN in a different room and in another case (where the PHN was meeting the mother of a recently deceased infant), I withdrew myself.

5.6.2 Harm

The potential for harm in this study is relatively low because each participant was a mature adult with considerable responsibility (for either a public health nursing service or an infant). Every step was taken during interviews to ensure that they were carried out in a respectful, honest and non-manipulative way. At group interviews, particular attention was paid to ensuring that ground rules regarding confidentiality were maintained; that group culture did not interfere with individual expression; and that "fair" representation of each view was facilitated (Fontana and Frey 1994, Morgan 1997). I was worried early on about sensitive areas being raised and in the one situation where this happened (where a mother was very upset about a comment made by the PHN) I was able to discuss it with her afterwards and draw on my public health nursing skills.

5.6.3 Privacy, confidentiality and anonymity

In the research context, the right to privacy can be violated during the course of an investigation or after the study has been completed. In this case every effort was made to protect the privacy of the participants, particularly where personal matters emerged in the course of interviews. The home setting is considered by many to be the most private of settings and, following discussions with PHNs and PHN

managers, it was decided that data would not be collected from this setting. Two ways of protecting privacy are through confidentiality and anonymity. The essence of anonymity is that information provided by participants should in no way reveal their identity (Cohen et al. 2000). The collective case in this study is the public health nursing service in the Republic of Ireland and, although it is not possible to anonymise this, within the case other details have been anonymised to avoid harm to individuals.

In order to protect respondents' privacy, the postal survey was mailed by An Bord Altranais to all PHNs on the live register and I did not have access to individuals' names. On the questionnaire, anonymity was offered to all respondents and, if PHNs wished to take part in additional study but keep the findings from the questionnaire anonymous, it was possible to detach the page with their name and address. More than a third (34%; n = 204) of respondents completed this page but, in fact, only a small number (n = 15) returned the page separately to me. In the case of the former group of respondents, the guarantee of anonymity is impaired, but confidentiality will be applied and no information from those participants will be publicly divulged.

Anonymity with face-to-face interviews is more problematic. In this study each participant and community care area involved in the qualitative data collection was given a pseudonym at the first point of contact. These pseudonyms with their original names are held in a locked filing cabinet and this is only accessible to me. In doing so, I can maintain anonymity for participants while at the same time providing a mechanism through which the rigour of the data is protected. Pseudonyms are used throughout this thesis for participants, community care areas and health board areas.

There is an expectation by participants in almost all studies that confidentiality will be protected and this is also the case in this study. Assurances of confidentiality have been given to all participants. I transcribed all interviews myself as a way of maintaining confidentiality for participants The transcripts are held in a locked filing cabinet and have been shared only with one other person who assisted me in "peer debriefing". Transcripts and other data collected will be held in a secure location for a

period of ten years after the study but will then be destroyed. Requirements under data protection legislation will be complied with.

In summary, this study actively subscribed to principles of mutual respect, non-coercion and non-manipulation, the support of democratic values, and the belief that every research act implies moral and ethical decisions (Denzin and Lincoln 1994). These principles guided each part of the study and at all stages, issues relating to consent, privacy and confidentiality were key features.

5.7 Credibility

There has been some discussion in the literature regarding the employment of criteria for judging the credibility of qualitative inquiries (Emden and Sandelowski 1999, Lincoln and Guba 2000, Cutcliffe and McKenna 2002). Emden and Sandelowski (1999 p5), for example, argue for the inclusion of a "criterion of uncertainty" in research reports and recently, Lincoln and Guba (2000) have added to their previously identified authenticity criteria of fairness, and ontological, educative, catalytic and tactical authenticity. These new criteria include validity as resistance, as post-structural transgression, voice, reflexivity and ethical relationships. Five techniques have been proposed by Lincoln and Guba (1985 p290) as a mechanism for enabling a researcher to "persuade his or her audience that the findings of an inquiry are worth paying attention to, worth taking account of". These are

- Activities that make it more likely that credible findings and interpretations will be produced (prolonged engagement, persistent observation and triangulation).
- An activity that provides an external check on the inquiry process (peer debriefing).
- An activity aimed at refining working hypotheses as more and more information becomes available (negative case analysis).
- An activity that makes checking preliminary findings and interpretations against archived raw data (referential adequacy).
- Providing for the direct test of findings and interpretations with the human sources from which they have come (member checking).

Each of these techniques has been used throughout the study. My personal and professional background enabled me to be able to "survive without challenge while existing in the culture" while at the same time ensuring that I did not take on a performance-understanding role or "go native" (Lincoln and Guba 1985). Triangulation was a key feature of the study, particularly in terms of data types, methods and sources and this has been discussed above. In this study, "peer debriefing" took place at a number of different points. These points occurred on completion of the qualitization of quantitative data, at category development for the qualitative data on the questionnaire, on completion of the interviews, on completion of the fieldwork, and at points of emergent categorisation. In doing so, I was able to explore aspects of the public health nursing service that might otherwise not have been made explicit and this allowed me to constantly reflect on my own position within the study. Further, it enabled me test questions as they emerged and by challenging aspects of these, acted as a catalyst for further development.

One site used in the case studies may be termed a negative case because it was the site that contained significantly more aspects understood as good public health nursing service quality. Analysis of this case allowed me to revise hypotheses "with hindsight" until they accounted for all known cases, and the emergence of the theme "orientation" was particularly grounded in this way. In addition, formal and informal "member checking" took place at every stage, throughout the interviews, at the end of the interviews, at the time of categorisation, and when the categories had been developed. Although not every member wanted to be involved on an on-going basis with the study development, each contributor was involved in the co-construction of this understanding of service quality. Care was also taken to ensure "fairness of representation" within the "thick descriptions" developed and also within the model.

5.7.1 Generalisability and transferability

Case study research has been criticised on the basis that its findings are not generalisable (Gomm et al. 2000). Bryar (1999) has noted that generalisation from case study is dependent on the resolution of issues relating to the selection of the case, rigour in data collection, and the place of the researcher within the research. Other authors argue that generalisation should not be the goal of this type of research

and that "the only generalisation is: there is no generalisation" (Lincoln and Guba 1979 p28). Determinism; the possibility of inductive logic; the idea that the validity of accounts can be context-free; the existence of exception-less laws; and reductionism have all been identified as reasons why generalisation is not an acceptable goal in naturalistic inquiry (Lincoln and Guba 1985). Stake's (1995) understanding of generalisation from case study is broadly, although not fully, coherent with that outlined above. Stake (1995 p173) notes that the goal of case study is not the production of general conclusions but rather "vicarious experience" through "drawing experiential understanding from the narratives of others". Stake's position is not fully clear however, because in identifying the development of "assertions" as one of the "major conceptual responsibilities" of case study (p244), he implicitly seeks to identify areas of generalisation.

It has been argued that a position of not seeking to generalise from a study is untenable because most researchers "appeal to the general relevance of the cases they study in order to establish the value of their work" (Gomm et al. 2000 p99). Gomm et al. (2000), are particularly critical of Lincoln and Guba (1985) in this respect and write that their use of holographic film metaphor (Lincoln and Guba 1985) is an attempt to seek generalisation by suggesting that each "instance" preserves all the features of the whole. Both Mitchell (1983) and Yin (1994) argue that generalisation from case study is possible and involves inference that is "logical", "theoretical" or "analytic" in character. Mitchell (1983), for example, suggests that case studies can be used to generalise from, provided the case study is embedded within an appropriate theoretical framework. Yin (1994 p110) notes that by stipulating a set of causal links about a case, a phenomenon can be explained and is, therefore, generalisable.

In my study I believe the findings have relevance and value for others and, in that sense, I am making claims for generalisability. In keeping with the work of Stake (1995) and Lincoln and Guba (1985), I am making this case on the basis of providing "thick description" and therefore, vicarious experience for the reader. Also in keeping with the work of Stake (1995), I will highlight and identify aspects of the work I believe I can "assert to" within the model developed. "Transferability",

"dependability" and "confirmability" were proposed by Lincoln and Guba (1985) as a mechanism for understanding generalisability in qualitative research. Many researchers have used these criteria since that time and an explication of the issues involved in these three areas has taken place (Patton 1990, Punch 1998, Silverman 2000). Consequently, I have used these three criteria in order to present support for the credibility of this study and these are now addressed.

Dependability and confirmability

The fit of the data presented can be enhanced by ensuring that data collection continues until no new information is obtained and, by ensuring that sufficient incidents and experiences have been included to cover most issues. Data collection continued in this study until theoretical saturation had been reached and a wide range of experiences and incidents were identified over the course of this time. The findings section draws on a broad range of detail and description in an attempt to provide "thick description" so that potential "appliers" have a data base from which to make transferability judgements.

Dependability is sometimes used synonymously with "consistency" and is equated by some authors with the concept of "reliability" in studies underpinned by the positivist paradigm (Cohen et al. 2000). Punch (1998) relates both dependability and confirmability to "transparency of method" although Lincoln and Guba (1985) differentiate between the "process" (dependability) and the "product" (confirmability) of the enquiry. Careful retention, in easily retrievable form, of all study materials, from raw field notes through data displays has been a feature of this study and examples of these at every stage of the study are provided in the appendices. Throughout the methods section, sampling decisions made both within and between cases have been made explicit, instrumentation and data collection operations described, and the database size, as well as software used, provided. An overview of analytic strategies followed in the development of the categories has also been described. Such detail is consistent with the "audit trail" necessary for dependability and confirmability judgements about the study.

Generalisation within the case

Generalisation often takes place within the case when the "case" is so large that not all examples of it can be researched. In this study, the case is the public health nursing service within the Republic of Ireland. Not all examples of this case were studied and transferability within the case had the potential to be misleading. The use of theoretical sampling, based on data emerging from the survey data, to identify "cases" for study has reduced that risk. Reliability and validity of the questionnaire survey has been discussed above. The response rates for the PHN (54%) and PHN managers' (73%) questionnaires coupled with the careful development of the questionnaires, with the use of an expert group, and subsequent reliability data from the findings are in keeping with the literature that suggests findings can be generalised. Further, the triangulation of survey data from PHN and manager sources, throughout the analysis of the qualitative data increases the likelihood that transferability within the case is legitimate.

Generalisation beyond the case itself has been given consideration and, while understanding the position outlined above by Gomm et al. (2000), I have taken the position that transferability through vicarious experience is the mechanism through which the case itself can be understood as having a wider relevance. Donmoyer (1990) identifies three advantages to presenting cases in this way. He suggests that

- accessibility is increased because case studies can widen the readers' experience to include different settings
- vicarious experience allows others to look at the world through the researcher's eyes and see things that might otherwise not have been seen
- decreased defensiveness is more likely because vicarious experience is less likely to result in defensiveness and resistance in learning.

I am making a claim for the transferability of the study findings to other contexts and believe that the seven steps of process outlined along with the five concepts of service quality will be recognised by others working with families with infants. Methods used have taken account of key issues relating to both positivist and constructivist paradigms; decisions taken have been made explicit and examples of raw data,

reduced and analysed data, reconstructed and synthesised data, process notes and information on instrument development are all provided In writing up the study "thick description" has been provided.

5.8 Study limitations

Some limitations to this study are noted. The sampling frame used for the census of PHNs was not as current as I had first believed and, although this was likely to have had an apparently depressing effect on the response rate, the lack of accuracy does raise some questions. A ranking approach to components of the PHN's work in the questionnaire may have yielded more discriminatory findings in this respect although the use of other methods within case study sites may have negated the effect of this. The sampling frame used for PHN managers included only directors of public health nursing and the absence of a mechanism for identifying assistant directors of PHN meant that as a group, they may not have had the same opportunity to contribute to the study. I have tried to account for this in the selection of participants for group and individual interview data. My research training has developed throughout this study and although my professional background as a PHN has been useful when interviewing and observing, these skills were not as finely tuned at the beginning of the study as they were later on. I did take some steps to ensure that I was as competent as possible by carrying out pilot group interviews, engaging in peer debriefing, and member checking. There is, however, no substitute for personal experience.

5.9 Summary and conclusion

This chapter has identified the methodology and methods used to guide this study. The contested nature and multiple understandings of case study as a research strategy were examined and difficulties in identifying and bounding the case identified. Key theoretical and paradigmatic aspects of the methods used were presented and the relative use of Yin (1994) and Stake's (1995) work to guide the study discussed. Methods used in the two phases of the study were presented and a detailed description of the development of the questionnaires provided. Sample selection, data collection, data analysis and issues relating to reliability and validity for both PHN

and PHN manager surveys were made explicit. The transition from phase one to phase two of the study was discussed. Issues arising from the use of individual and group interviews as well as non-participant observation were highlighted and situated within the context of this study. Participant selection, data collection and analysis during the second phase of the study were described in detail. The analysis, focusing on the development of categories through constant comparison and the use of methodological, data source, and data type triangulation were presented. Issues relating to the ethical underpinnings of the study, and claims for the transferability of the findings of the study were made explicit.

Punch (1998) notes that there are a number of macro-level (power, voice, politics), middle-range (marshalling of evidence, relationship between the researcher and the researched) and micro-level (first person, changing tone, how the story is told) choices to be made when writing up a study. Authors such as Patton (1990) and Tashakkori and Teddlie (1998) suggest that paradigm wars are over and that that rather than aligning oneself with any one paradigm, the primary criterion for any researcher should be methodological appropriateness (Patton 1990 p39). Lincoln and Guba (2000 p174), on the other hand, suggest that axioms underpinning positivism and constructivism are "contradictory and mutually exclusive" and the two paradigms are, therefore, not commensurate with each other. These debates, coupled with "the crisis of representation", described by Denzin and Lincoln (1994, p2), have led me to give some consideration to how I should write up my study. Some decisions were relatively uncomplicated and while Patton (1990) and Tashakkori and Teddlie (1998) suggest a pragmatic approach, I believe the need for academic accuracy and rigour means the use of paradigmatically appropriate language when presenting each phase. Consequently, in this chapter, each phase has been written in a language commensurate with its particular paradigm and each phase has been presented separately. The presentation of findings, however, created more challenges. The most common way in which two-phase studies are presented is through sequential ordering (Tashakkori and Teddlie 1998). This type of approach, however, is clearly at odds with the guiding aim of understanding service quality in a "holistic" way. It is also at odds with a constructivist approach to understanding service quality. In presenting the findings, therefore, data from both phases are presented simultaneously and this has

been greatly facilitated by the qualitization of quantitative data. The findings chapters that follow, give primacy to the paradigm of social constructivism (Spivey 1995 p314) and present the "building, shaping and configuring of the meaning" of quality in the public health nursing service to families with infants.

Chapters 6-7: Findings

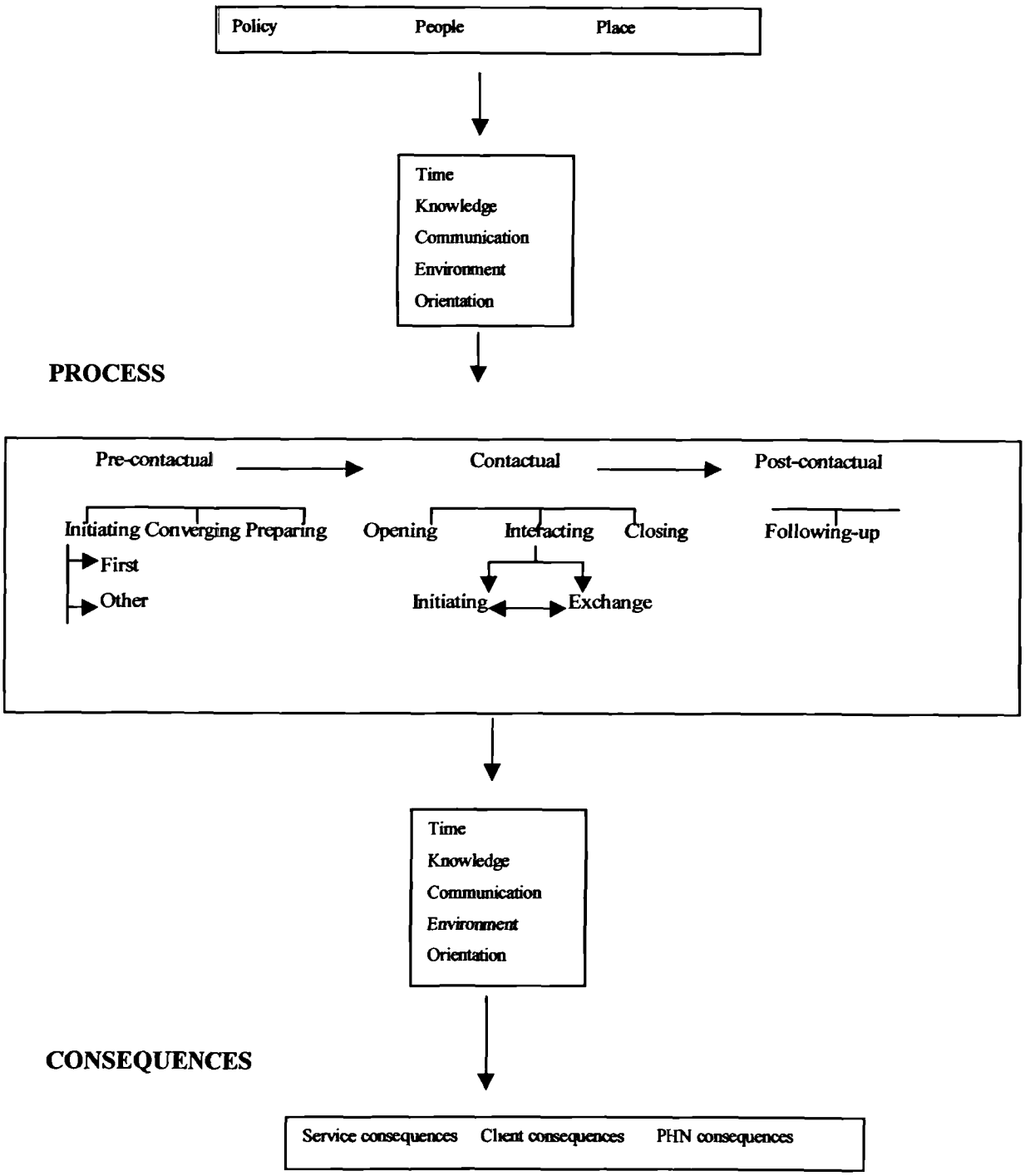
Overview of findings

I set out in this study to develop a model that would enable quality in the public health nursing service to families with infants to be understood in a holistic way. In doing so, some consideration has been given to the terminology used to refer to the individual and combined findings emerging from this study. Several questions arise in respect of this terminology and these include, whether the combined findings constitute a model, a theory, or a framework; whether the five emergent areas of time, knowledge, communication, environment and orientation are concepts, dimensions, variables or themes; and whether the process uncovered has three phases (pre-contactual, contactual, post contactual), three stages or three points. Finally, within the three phases a question of whether there are seven steps, seven components or seven events has been considered.

Disentangling the meaning of the terms models, frameworks, theories, concepts, variables, and dimensions is challenging, since there is little agreement on their relative rank in the domain of understanding and meaning-making. Some present models as a mechanism for testing theory (Dungan 1997), or as an interchangeable term with theory (Cohen et al. 2000). Others suggest that a model is a framework ("for looking at reality" Silverman 2000 p77). Polit and Hungler (1989 p398) write that a model is a "symbolic representation of concepts or variables, and interrelationships among them". In keeping with that understanding, and in the interests of conceptual coherence, the combined findings from this study are presented as a model. Variables that can be operationalised within the model are organisational context (policy, people, place), the seven steps of process (initiating, converging, preparing, opening, interacting, closing, following-up) and consequences (client, PHN and service). I believe the term concept accurately reflects time, knowledge, communication, environment and orientation because "each word is a representation of an idea" (Cohen et al. 2000). Relationships between these concepts and variables presented are illustrated by demonstrating how each individual concept can emerge from the organisational context within which the service is provided and by explicating how they influence the service process. A further link is made between

the impact of different processes on the consequences of the service. Figure 6.1 presents a schematic illustration of the overall model of service quality in the public health nursing service to families with infants under one year that emerged from this study.

Figure 6.1 Proposed model of service quality



Note The model is presented over two chapters with this chapter being primarily concerned with the enactment of service quality in the process of the public health nursing service while Chapter 7 focuses on the links between organisational context and process.

The model appears a complex one with parts, concepts, phases, steps and influences. It can, however, be understood as having three broad parts (organisational context, process and consequences). Within each part there are three sub-parts. "Organisational context" comprises policy, people and place. "Process" comprises three phases, pre-contactual, contactual and post-contactual, and "consequences" comprise service, client and PHN. At the heart of the model are the seven steps of process (initiating, converging, preparing, opening, interacting, closing and following-up), and the five concepts of time, knowledge, communication, environment and orientation.

Findings supporting this model are now presented in two chapters. Chapter 6 uses "thick description" of the public health nursing service to families with infants to illustrate findings that emerged from a triangulation of multiple data sources, types, and methods. An absence of a research-based literature on the Irish public health nursing service means that such description is a necessary starting point for the development of a model of service quality. The depth and breadth of "thick" description provided in this chapter can facilitate transferability of the findings from this study to other situations by providing opportunities for "vicarious experiences" (Lincoln and Guba 1985, Stake 1995). These situations may include other services provided by the public health nursing service in the Republic of Ireland (for example, to the elderly, people requiring clinical nursing care) or by the public health nursing service elsewhere (for example, the public health nursing service to families in the United States or Finland, and the health visiting service in the United Kingdom).

The five concepts of time, knowledge, communication, environment and orientation are highlighted throughout Chapter 6 and the extent to which these five concepts can emerge from the organisational context within which the service is provided is made explicit in Chapter 7. Specifically, data from each of the four CSSs are compared and contrasted and consequent understandings of service quality drawn out. Data from the national survey of PHNs are used to situate these findings within the collective case of the public health nursing service. This enables the reader to draw conclusions about within-case transferability. Throughout, each concept can be seen to be an organisational pre-requisite, part of the public health nursing service process, and an

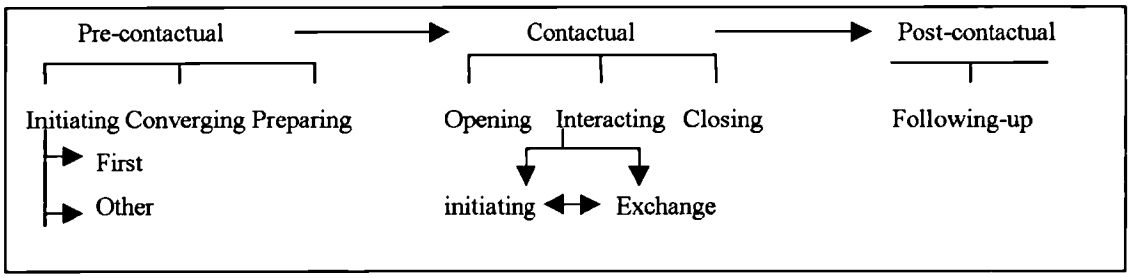
influence on the consequences of the service. This explication supports the relative positioning of these five concepts within the model, between structure and process, and between process and consequence.

Chapter 6: Process

6.1 Introduction

A description of quality in the public health nursing service to families with infants now follows. This description is guided by the three-phase (pre-contactual, contactual and post-contactual) temporal trajectory of process. An explication of each of the seven steps (initiating, converging, preparing, opening, interacting, closing and following-up) of process is presented along with key influences, and these are represented graphically in Figure 6.2. Throughout this chapter this figure, with different parts highlighted, is repeatedly presented to provide signposts for the reader regarding the phase of the process under discussion.

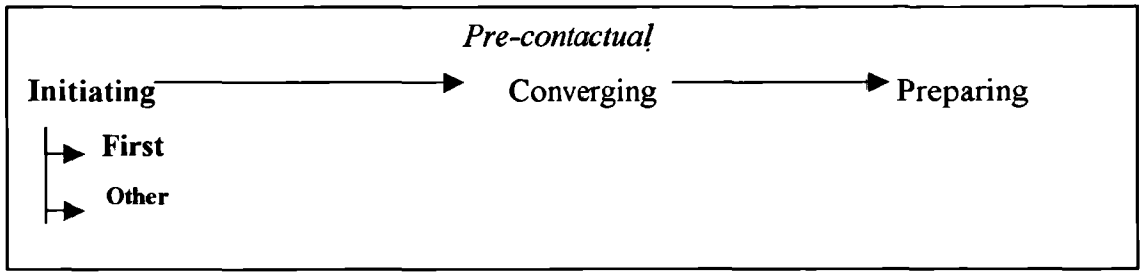
Figure 6.2 Process of public health nursing service



6.2 Pre-contactual phase

The pre-contactual phase represents the first phase in the temporal trajectory of process. This phase takes place prior to contact between the client and PHN, and the emphasis here is on why and how people enter the service. Three steps within this phase were identified in the data. These are "initiating", "converging" and "preparing". The first contact is exceptional within the step of initiating and because of this, the findings presented for this step are more lengthy than for others. An overview of findings from each of these steps is presented in Figure 6.3. The step under review is highlighted in the model by the use of bold typeface.

Figure 6.3 Overview of pre-contactual steps

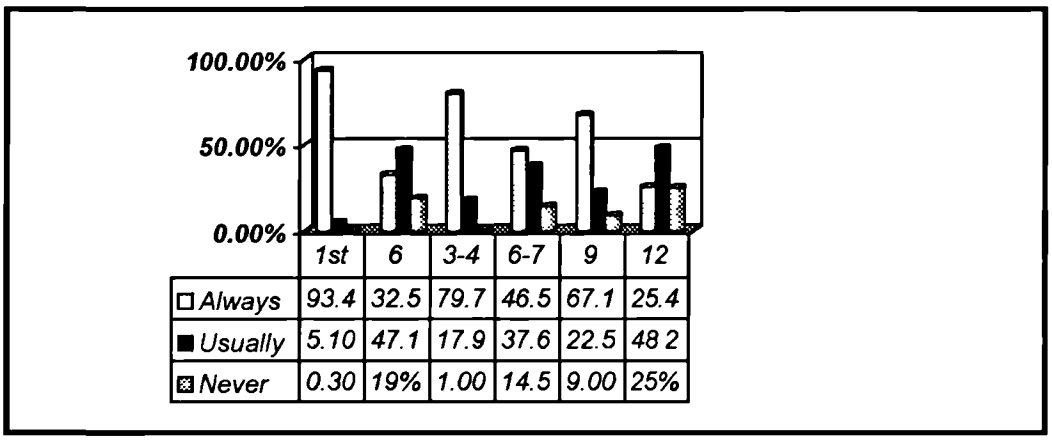


The term "initiating" is used here to describe the first step in the process, and initiation is considered separately in relation to the first and other contacts. It includes the rationale for, and mechanisms through which, the process of public health nursing to families with infants begins. Some PHNs said they would like to have contact with all families during the antenatal period because it helped "build up a relationship" and acted as a "valuable introduction to the service". PHNs and clients identified opportunities for contact in the ante-natal period because of PHNs' on-going contact with older children in the family, PHN involvement with other client groups in the community (particularly clinical nursing care and home help organisation), and just from "being around the area". A small number of PHNs offered antenatal classes for pregnant women and this also provided opportunities for contact prior to the birth. Findings from the survey questionnaire, however, suggest that the numbers who have contact with families in the antenatal period are low. Eighty percent of the 583 respondents to a question about the proportion of families with whom they had antenatal contact said they saw 10% or less. Only a small number (n=8) said they saw all families prior to the birth of the infant.

Since a standardised record for public health nursing work with families with infants was issued in 1978, PHNs have been mandated to have contact with all families at six specific times in the infant's first year of life. This is the primary policy rationale underlying PHN contact with families. These contacts are sometimes referred to as core or prescribed contacts. The first visit is mandated to take place after discharge from hospital, and the other visits are mandated to take place when the infant is six weeks, 3-4 months, 6-7 months, 9 months, and 12 months. Not all PHNs initiate or

undertake these contacts, and findings from the PHN questionnaire indicate that the extent to which they take place varies considerably. PHN respondents to the questionnaire indicated that on average 3.4 (sd 1.37) contacts take place between themselves and families in the first year of life. Only 35 (5.7%) of respondents to the questionnaire survey indicated they always had contact at each of the mandated times identified above. The percentage of time PHNs say they "always" or "usually" have contact with families with infants is illustrated in Figure 6.4

Figure 6.4: % of PHNs who have mandated contact



	1st	6	3-4	6-7	9	12
Always	93.4	32.5	79.7	46.5	67.1	25.4
Usually	5.10	47.1	17.9	37.6	22.5	48 2
Never	0.30	19%	1.00	14.5	9.00	25%

Figure 6.4 illustrates the importance of the first contact where almost all PHNs reported they always have contact with families with infants. This compares with the findings for infants who are six weeks old (where less than one-third (32%) of PHNs report always having contact at that time) and 12 months (where only a quarter report always having contact). Some PHNs suggested that having contact at the core ages of infants over the first year of life was good service quality.

A second rationale for PHN initiation of the public health nursing service emerges from what can be understood as a "personal policy" by the PHN towards contact with families with infants. Individual PHNs sometimes decide that particular groups of mothers (e.g. all breast-feeding mothers), infants (e.g. all premature infants), families (e.g. all first-time families) require additional contact. This suggests that some PHNs operate a personal policy around having (and therefore initiating) contact with families with infants that is independent of the mandated contact and independent, also, of individual client need.

The third rationale underpinning service initiation by the PHN relates to client need. The PHN may respond to client need that has been identified by some other professional, non-professional, or family member. Sometimes the need can be identified by the PHN herself during a prior encounter. In each of these, the rationale for initiating contact with the client is the same, that is, it emerges from an identified client need. On the PHN survey questionnaire, PHNs were asked if they had contact with families at times other than those specified by official mandate. More than half of all respondents (n = 322; 53.9%) said they "generally" did, a further 23% (n = 138) said they occasionally had contact at other times, and 23% (n = 137) say they had contact at other times only if there was a problem.

Any PHN may initiate contact on the basis of one or more of these rationales. The PHN below, working in case study site (CSS) 1, for example, identified all three. This PHN also demonstrates how on-going regular contact in the early post-natal period influences her understanding of service quality.

> *Grace: What I offer here is every mother an opportunity (for me) to see the baby every week for the first five weeks [*personal policy*]. At six weeks they go to see their GP. Now .. if there is a problem with weight or if they are breast-feeding and they are not, maybe they are not that confident I would see the baby again in a month or before that. I would tell them .. there is a drop-in service [*client need*]. They are here every Monday. They don't need an appointment. And then I do the routine visits at three months, seven months [*official mandate*]. And I found that the babies that I see every week for five weeks I have no problem in getting those mothers to return to the clinic. I feel if you are there at the start that you have established a kind of a link and to me that's quality. [IndvPHN1]

Figure 6.4 illustrated the extent to which PHNs, responding to a question on the survey questionnaire, reported having on-going contact at the mandated times. A sub question asked PHNs whether they thought contact was necessary (according to a five-point Likert-type scale ranging from unnecessary to essential) at those times. The findings suggest PHNs' understandings of the need for contact at mandated times can differ considerably and these findings are presented in Table 6.1.

Table 6.1 Necessity of contact

	Always contact	Usually contact	Never contact
Essential	80.4	18.1	1.6
2	37.4	57.0	5.6
3	20.1	72.5	9.9
4	12.2	53.1	34.7
Unnecessary	13.4	23	63.6

The findings presented in Table 6.1 represent a "count" of the findings in each category ("always" have contact when considered necessary, "usually" have contact when considered necessary, "never" have contact when considered necessary). These were then combined in a multiple response set. The findings above highlight two areas for consideration. First, they show that contact can be initiated at times when PHNs consider it to be unnecessary (36% of responses). Second, they show that contact "always" takes place only 80% of the time it is considered essential (although a further 18% say it usually takes place).

Initiation of first contact

First contact is exceptional in the context of the overall contact and, for that reason, findings relating to this contact are presented separately from others. Generally, initiation of first contact between the PHN and client takes place soon after the infant is born. Reasons for this are related to the mechanism and rationale for initiation. The most usual mechanism for first initiation is the formal birth notification system. Under this system, all new infants born are statutorily notified to the director of public health nursing in the community care area (CCA) where the infant lives. This means that contact is unsolicited by the client and also that initiating the process has a legal basis (although clients are free to refuse the service). Occasionally, if there are identified concerns (for example, a small baby or a mother with specific health problems, a family where there are concerns about neglect or abuse), the birth notification may be preceded by direct contact between the maternity hospital and the PHN. When families move to different areas, a PHN may be notified by the PHN in the previous area and this is particularly the case if there are concerns about the family in relation to physical and social health.

The timing, accuracy and completeness of the birth notification were said by PHNs and PHN managers to influence how soon the process commenced. PHNs said they usually treat birth notifications with urgency and first contacts take place as soon as possible after receipt. In some CCAs, the timing of the first visit is the only written standard in place and the only performance indicator agreed nationally at this point in time is also related to the first visit. As one PHN said

> *Josephine: I definitely think the start of quality is how soon we get to visit after the notification. Your whole schedule of visits is based on that and the satisfaction of parents is perceived on how soon you have visited. If there is a long delay they are not too happy with that. [GrpPHN1]

Late receipt of notification of birth was considered an impediment to good service quality by key stakeholders and this was particularly the case in circumstances where it was felt the family would have benefited from early visiting. These included mothers who were breast-feeding, had a difficult delivery, a poor obstetric history, and mothers who were unsupported or where there were specific concerns regarding the health and welfare of the family. If notification of birth was late coming to the PHN, the mother had already involved another service in their care and when that happened, mothers sometimes indicated to the PHN that they were not needed. PHNs said that "getting in early", when people were "vulnerable" helped them in developing relationships, and mothers said that when the PHN came "early" it was great and "fantastic". The mother below identified her rationale for early public health nursing service involvement.

> * Kerry: ...You know you have 24 hour attention in the hospital and you come home to your husband who knows nothing. You know, ... so for any queries that you have ... It is important. You know within the first 48 hours you are going to have come across most things that's going to happen in the future anyway. [Indivclient4]

Re-initiating the process of public health nursing

Re-initiation of the process of public health nursing is more complicated than that of first initiation. The process may be re-initiated by PHN, client or other person. For PHNs, the rationale for initiation may be categorised in terms of mandatory obligation, PHN orientation or in response to an identified need. For clients and others, re-initiation of the service is generally in response to client need.

No consensus emerged about how often the service should be re-initiated or, who should re-initiate contact, for understandings of service quality to be positive although if clients re-initiated contact it was often constructed as an indicator of their

satisfaction. On the questionnaire survey, some PHNs wrote that "regular" or "intensive" contact and visiting were important factors enabling a good quality service. Others wrote that having a "high input" in the "first few weeks", up to the time the infant was "six weeks", "three months", "six months" or even one year was important. At one group discussion, the amount of contact was a source of disagreement between two PHN managers. One suggested that mandatory visiting at specified times was insufficient to meet needs while the other argued that the mandated amount of contact was unnecessary for every family. These are not, of course, mutually exclusive arguments but they illustrate the contested nature of the amount of contact necessary according to the individual situation.

Some PHNs identified initiation by PHNs for the "core visits" only as good service quality. Others said being able to visit as often as they felt necessary was good quality, especially in the early postnatal period, while yet others said they were available if mothers wanted to contact them. There was general agreement among mothers that "regular" contact in the early stages after discharge from hospital was good quality because it provided a "comfort zone" when they knew there would be somebody to contact if there was a problem. There was general agreement between key stakeholders that the early post-natal period was a time of increased need and PHNs indicated that increased contact often took place during that time.

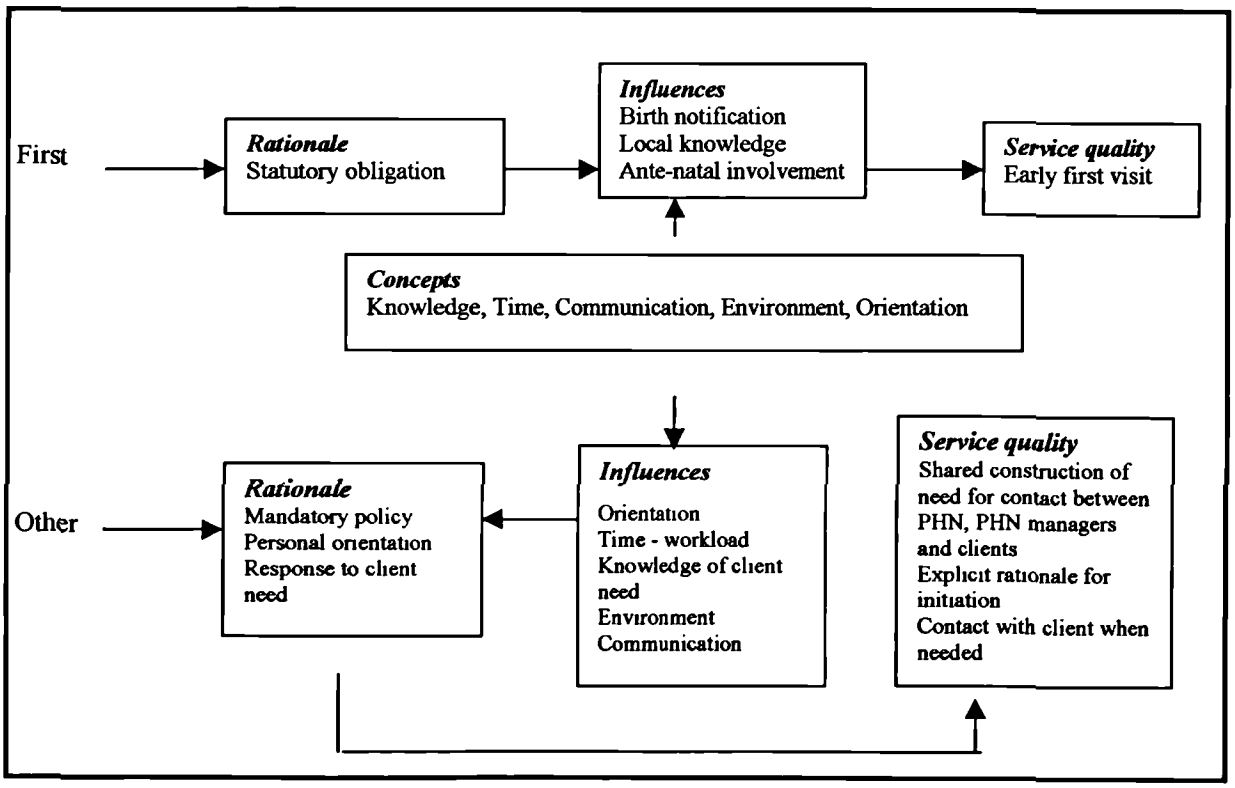
Time (47% of responses; n = 257) and workload (49% of responses; n = 270) emerged as the two most frequently cited impediments to the provision of a good quality service in an analysis of responses to the open-ended question on the PHN questionnaire. In both survey and interview data, PHNs said that the size, diversity and complexity of their workloads (in particular, clinical nursing, terminal care and clerical duties) meant that there was less time available for initiating contact with families. Further, prioritisation within the workload was necessary and many other elements were identified as taking precedence over PHNs' work with families with infants. Child health work was described in terms of "going on the back burner", other duties "taking over", child health work being "postponed", and mother and baby "left waiting". Some PHNs wrote they would like to be able to provide additional services to families. These included more frequent visiting, more home

visiting, more visits to first-time parents and to vulnerable families, and the provision of more structured health education/promotion. They said, however, that lack of time precluded them from doing so. A lack of uniformity between areas in the amount of time available created problems for PHNs because of the difference in the amount of contact that could be initiated. The following quote made by the PHN in CSS 2 (where the population size was almost three times greater than that of CSS 1) illustrates this.

> *Brigid: I was thinking that for there to be any kind of quality of care for infants in the first year there should be some uniformity of services and there isn't. Say, for instance, one of my colleagues is in an area where sometimes she may have three birth notifications. She gets her babies and she can see them on the day she gets them. She can go back the following day and the following day and she can see them weekly or daily for a week or longer if she thinks they need help and be totally available to them. Whereas, with my numbers ... I see them and unless there's a huge problem I ask them to come to the clinic or to contact me and I think that is unfair like for mums and it's very difficult to explain to people [IndivPHN2]

An overview of process initiation by PHNs illustrating rationale, influences, and indicators of service quality for first and other service initiation is presented below in Figure 6.5.

Figure 6.5 Rationale, influences and quality for PHN initiated process



PHNs may also have contact at prescribed times although they do not believe it to be necessary. For example, 13% of responses in the category "always have contact" deemed contact at that time to be unnecessary. A question of why PHNs undertake visits that they consider unnecessary is closely related to the mandated nature of the service and the need for PHNs to meet service requirements. The safety net nature of the service is illustrated below by a PHN who said she did initiate contacts with families even when she considered them unnecessary.

> *Sarah: You're saying "maybe I missed something here along the line". And you are saying "well, maybe if I had managed to do a three-month visit maybe something would have been picked up". [GrpPHN2]

In summary, PHN have three rationales for initiating re-entry to the service. These are on the basis of officially mandated contact, personal policy and client need. First and other contact initiation between PHN and client have been considered separately because of differences emerging in respect of rationale. Where PHNs identify a need for contact but are unable to follow-through on this, they understand service quality as being poor. Sometimes PHNs initiate contact at a time they believe is not necessary and this is often in response to the mandated policy for on-going contact. Some concrete examples of each of the five concepts illustrate their importance in reaching an understanding of service quality at this step of the process of the public health nursing service. Examples include

- Time (where there is insufficient time because of workload, receiving the birth notification at an early time),
- Knowledge (having local and professional knowledge),
- Communication (need for communication to the PHN about the birth notification),
- Environment (personnel environment, where the workload is determined by the population composition, population size, and by the absence of others nurses to support the PHN), and
- Orientation (PHN personal policy for contact).

I am flagging these concepts as I go through each step in this chapter and their relevance to the overall model is considered in detail in Chapter 7.

Process initiation by client

Process initiation by clients takes place in response to their own need(s) and there was general agreement between stakeholders (PHNs, PHN managers and clients) that the first year of life is a time of increased need. Sometimes, client-initiated contact took place in response to a very clearly identified problem and sometimes it was a response to a more general need to know that the infant was progressing in a satisfactory way. The client below noted that it was reassuring to have the baby weighed and also to have contact with the "medical profession".

> *Heather: I go in about once every two weeks. Because I'm feeding him myself and particularly at the start one would be nervous that he wasn't putting on weight and, ...it's reassuring and you like to know the weight. It's good to have a number. It's useful as well that you have sort of regular contact with someone from the medical profession. [Indivclient4]

Specific client needs in the first year of life emerging in this study can be broadly categorised as practical, physical, emotional, informational, and financial. By far the most common area identified by parents and PHNs related to infant feeding. Practical issues arising included making up bottles, sterilising bottles and getting the baby to latch on the breast. Other practical needs also emerged and these included caring for an infant with a fever, cord hygiene, management of breast engorgement, and preventing accidents. Some mothers said they had a need for in-house support following the birth of the infant.

A number of mothers identified physical (tiredness, anaemia, infected caesarean section wounds) and psychological (blues, post-natal depression) needs in the first year of the infant's life. Mothers said the tiredness they felt after the birth of an infant was sometimes "unbearable" and both PHNs and clients spoke of mothers being "stressed", "nervous" and of being "hardly able to cope". PHNs, PHN managers and clients said the "first few months are very hard". Mothers said that even if they had other children they still needed to be able to access advice about some areas because every "child is different" and "you forget so easily". Informational needs identified were diverse and ranged from the need for information about normal development or specific areas of maternal and infant health, to the extent to which other services were available and the "scope of the public health nursing service". Mothers spoke of "not

having a clue", of being "fairly green when you are starting out", and of "being very much in the dark". One PHN shared this understanding and said

*Josephine: The normal run of events is abnormal to them [GrpPHN1]

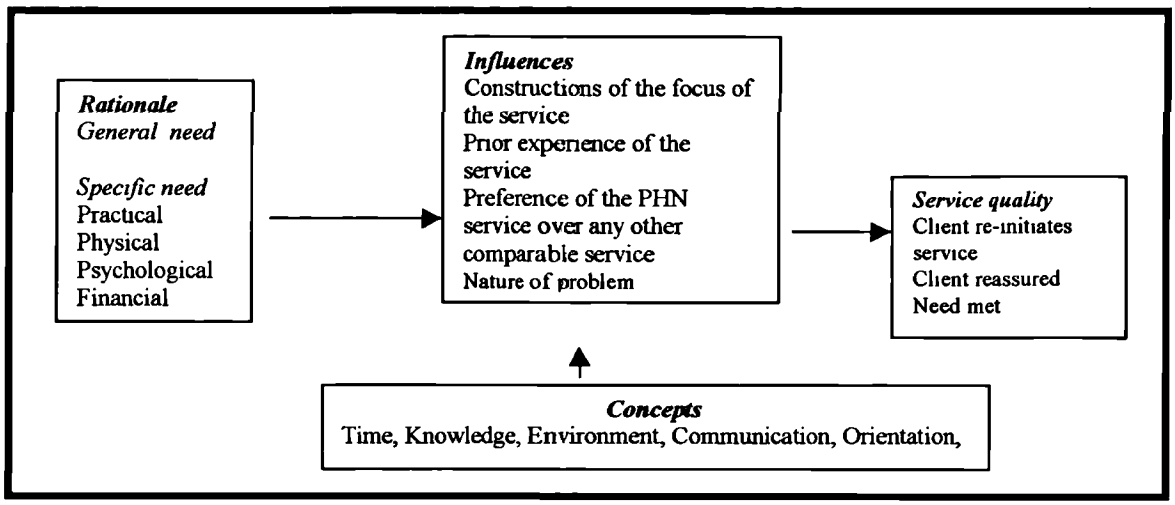
PHNs said that some families were under a lot of financial strain because of "big mortgages" and "buying only the best". One PHN gave an example of a mother who, because of financial pressures, had to return to work six weeks after having twins. Non-participant observation of interactions between PHNs and mothers revealed that the majority of clients have more than one need. For example, one young mother whose baby had been hospitalised with a chest infection spoke about the dampness of the house, about the problem of getting the baby to feed, and of being tired and worn out herself (Fieldnotes, CSS3, Date May 30th 2001). Having a need was usually insufficient in itself, however, to stimulate initiation of the public health nursing process and other influences were identified.

Mothers identified a number of areas of which they took account in respect of whether they would initiate contact with the public health nursing service with a particular need. These were

- The nature of the problem
- Understandings of the focus of the service
- Prior experience of the service and
- Preference of the public health nursing service over any other comparable service.

These are discussed in more detail below and are illustrated in Figure 6.6

Figure 6.6 Client initiated service



The need to be able to contact a professional about "small things" emerged in the course of the data as being of central importance to public health nursing process initiation by clients. Mothers said that being able to ask questions about anything, especially "things that are so small you would be embarrassed to ask your doctor about", was a particular strength of the public health nursing service. Where there was a good relationship with the PHN, mothers said they would be able to initiate the public health nursing process "without feeling silly". The client below describes this.

> *Siobhán: I mean I might need an answer about a small thing and if I look back on it now I would say that it kind of was "oh my God. That's ridiculous" you know. But at the same time I needed an answer there and then and it was great to be able to pick up the phone and ask [Grpclient1]

PHNs, PHN managers and clients all said that taking a common sense approach was important to service quality. The extent to which mothers use the public health nursing service as a resource for information about small things can be directly related to the demographic composition of the population. The exchange below suggests that in areas where there is a strong family network, clients are more likely to use their family and friends as a resource rather than the public health nursing service. The exchange presented below took place in community care area 1 at a group interview for PHNs. It graphically illustrates the part played by demographic composition, and the availability of other sources of information in the environment within which the public health nursing service is delivered.

> *Sheila: A lot of mine are well off but most of them are from outside of [name of place] and they have no extended family and they ask you everything. I am on the phone constantly. You

know, "how do I make up a bottle?", "what milk should I go on to next?" and "what brand would you recommend ?". You know ..stuff they would ask their mothers [but] they don't ask them because their mother is living in Roscommon or Galway or somewhere like that
*Josephine: And they are too embarrassed to ask their friends because they feel they should know it all yeah.. you know just very basic stuff
*Sheila: A lot of the people, they think they are bringing home this baby and this baby is going to be perfect. And they have really high expectations. Yeah I have looked at more rashes, more rashes, and these are perfectly normal rashes you know but they come up and say "this baby has got a rash" and they can't cope then a lot of the time if there is a cross baby or a bit of colic.
*Josephine: Yeah. We were studying our charts and you know in chatting and [Sheila] has a very high incidence of colic in ["affluent" suburb] and I have none. I have not seen one baby with colic in six months. But, that is documented anyway. We came across that in the literature when we were doing the research [on an area of practice]. ...It is just because they have more of a network of support - even if they don't have a mother there or if they are single, "in brackets", they have pals that have had babies. It's a whole culture thing and they have a lot of people they can ask. Imagine in six months now I am out there six months nobody ever asked me how to make up a feed or a bottle, anything
*Sheila: their expectations of parenthood are totally different -
*Josephine: yeah, they just get on with it [GrpPHN1]

Client understandings of the focus of the service also influence client initiation. Where clients felt the service was oriented towards helping rather than "blaming" them, and where they understood the PHN to be supportive, they said they were more likely to initiate the process. The following exchange took place at a group interview of mothers from CSS2, an area considered materially advantaged, and gives some insight into clients' understandings of the focus of the public health nursing service. The exchange starts with one mother telling a story about an experience a friend had with the public health nursing service elsewhere.

*Margaret: Now like a friend of mine, she had a baby a couple of years ago and like ...that now she had forgotten that the public health nurse was calling on this particular morning. And it was about midday and she said she opened the door and she was still in her dressing gown and she said "oh no". So anyway, she [the PHN] came in. And the other little other little fellow ..he was still in his pyjamas and it was just a bad morning and like .... it was wet and everything was wrong and the baby was alright but there were clothes everywhere to be washed and all the rest of it. And the public health nurse said "I'll call back later on" and Jackie said "oh my God they will take the baby off me now" and "oh they'll take away the baby".
*Katy: That's what we think though like you have that impression like
*Ann-Marie: Now my little guy who was limping also had a swollen eye and his ear was black and blue and oh my God and his nappy needed to be changed when the PHN called to her and you know that's what you think
*Katy: And that is what you think like but like definitely it's wrongly so and I know like it is silly and all that but like... [GrpClient2]

Other mothers also understood the public health nursing service as being focussed on monitoring / surveillance of their infants and children. During individual and group interviews, mothers said they felt the PHN would be "keeping an eye on you",

"making sure you were doing things properly", "checking up on the baby", and making sure the "child was in the right environment".

The service is understood by some clients as one that operates on behalf of the broader community in ensuring that infants are not abused or neglected. PHNs and PHN managers also recognised this understanding of the service. They generally agreed that it did form one component of the service, but they were anxious to present an alternative construction of a service as one focussed on advice and support for the majority of parents about whom they said they would have no child protection concerns. They said they did not like to be seen as a "policing service", or be viewed in the same way as a social worker, or be seen as having "sinister motivations". In those circumstances, they said, they would be seen as a threat rather than a support and then people would not be "comfortable", "confident" or "willing" to contact them. Some clients said that at the beginning they thought the PHN came to check up but that "when you get to know them they are a great help", "you wouldn't mind calling them", and "you would be looking forward to them coming".

An understanding of the orientation of the service towards one that seeks out "bad parents" has implications for the extent to which clients initiate the service. Where a client is fearful of "being blamed if anything is wrong" they are unlikely to seek out the service. Clients, PHNs and PHN managers said that when clients felt able to actively seek out the public health nursing service when they had a need, their understanding of the service was positive.

Prior experience of the service had the potential to either confirm or nullify understandings of the service. It also meant that clients had some knowledge of the "scope" of the public health nursing service. Where clients held some knowledge of the service they said they would be able to initiate the service without wondering if the "PHN would run you" or the PHN would think "you were abusing the system" or the PHN saying "it's the doctor's job". Prior experience of the service also had the potential to create expectations about what would be provided in terms of support, advice, and service availability.

The way in which the previous process had been conducted was also considered important and, for clients, the "busyness" of the PHN emerged as an important factor in initiating the service. If clients felt the PHN was rushed or busy they were less likely to initiate entry to the service again. This busyness was closely related to reports that they were not being listened to, and that they were being rushed in and out. The client below from CSS2 illustrates this.

> *Katy: But you know but definitely there is a need for it but you know it is very busy and it kind of turns people off it you know [GrpClient2]

Outcomes from a previous encounter were also identified as a factor influencing further initiation of the service. If the outcome of a previous experience had been unsatisfactory clients said they were less likely to initiate it again. Unsatisfactory outcomes included, advice, information or interventions that did not match the client's own experience; advice, information or interventions that did not improve the problem; and advice, information or interventions that made the problem worse.

Services in the Republic of Ireland for families with infants are limited and in some areas only GP and public health nursing services are available to them. In contrast to the GP service, the public health nursing service is free at the point of delivery for all families. Some mothers said GP care was expensive and in those circumstances they had a preference for initiating contact with the PHN. Sometimes, mothers initiated contact with the PHN as a way of determining "whether they needed to go to the GP". At other times, mothers said there were some things they preferred to ask the PHN because they knew more about them and this was especially the case in respect of infant feeding.

Summary: Initiating

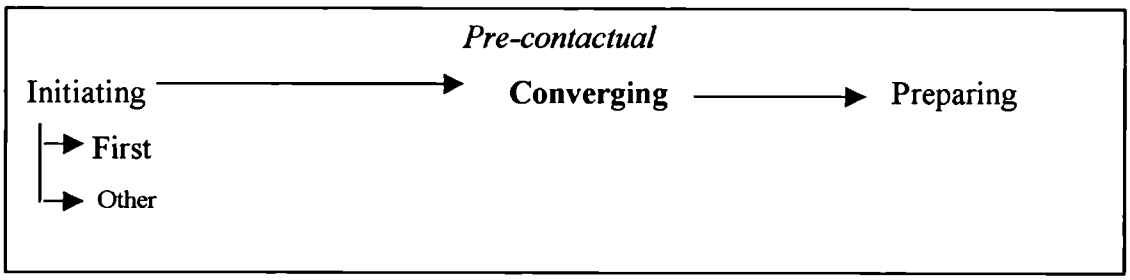
The preceding section has examined issues arising in respect of the step "initiating". This step is the first of three that takes place during the pre-contactual phase in the process of the public health nursing service to families with infants. First initiation is exceptional in the overall context of contact between the client and PHN and in this regard the timing was considered to be of key importance. Different levels of contact were initiated by different PHNs and with different clients and with different rationales. Where PHNs believed contact was necessary but were unable to provide it,

they identified a lack of time due to workload. Clients also initiated the process of public health nursing either in response to a clearly defined infant, maternal or family need or in response to a general non-specific need to know that the infant was progressing satisfactorily. Client initiation was influenced by the nature of the problem, their construction of the focus of the service, their previous experience, and the absence of a preferable service. This step of the process was influenced by each of the five concepts of time, knowledge, communication, environment and orientation and many concrete examples were identified throughout.

6.2.2 Converging

The second step in the pre-contactual process - "converging" - is so named because it describes the coming together of client and PHN. The focus here is on how PHNs and clients approach each other after initiation of the service and prior to contact. Figure 6.7 illustrates the position of converging within the overall process.

Figure 6.7 Converging



Initiation of the process of public health nursing can be immediately followed by an interaction between the PHN and the client. The PHN and mother may, for example, meet opportunistically through the PHN's clinical nursing work, involvement in school screening, or through a chance meeting by virtue of location. In such circumstances, convergence of PHN and client is not explicit because no specific steps are taken from the point of initiation to interaction. Usually contact between client and PHN is not opportunistic but follows from a formal initiation of the service. A mother may identify a rash on the infant, bring the infant to the health centre and interact with the PHN. A PHN may arrive at the client's home, interact with the client and undertake the various components of the process.

In order for a client to meet the PHN at the health centre, the service must be available at a time she can get there and, in addition, she must know the service is available at that time. In order to request the PHN to visit the client at home, she must be able to contact the PHN. For the PHN to meet the client at her home, the client must be there at that time and, in the context of a good quality service, the PHN must know that. If the PHN wants the client to come to a clinic she must be able to make contact with her. In situations where either the client or PHN is unavailable or, unaware of when and where the other is available, service quality is impeded. Service quality is constructed as being impeded if the PHN or client cannot be contacted easily.

Mothers said they needed accurate and complete information about the availability of the service and although this was essential to their construction of service quality at all times, it was deemed especially important if they had to take time off work. "Converging" is also contingent on the "contactability" of the service. Even in situations where the service and client are both available, successful contact may not take place because one or both are not contactable. Key stakeholders identified many telecommunications problems with PHNs. Sometimes, telephone lines were constantly busy and shared telephone lines were common. Sometimes, messages left for PHNs were not given to them, or the information provided was inaccurate or insufficient leading to reports of poor quality

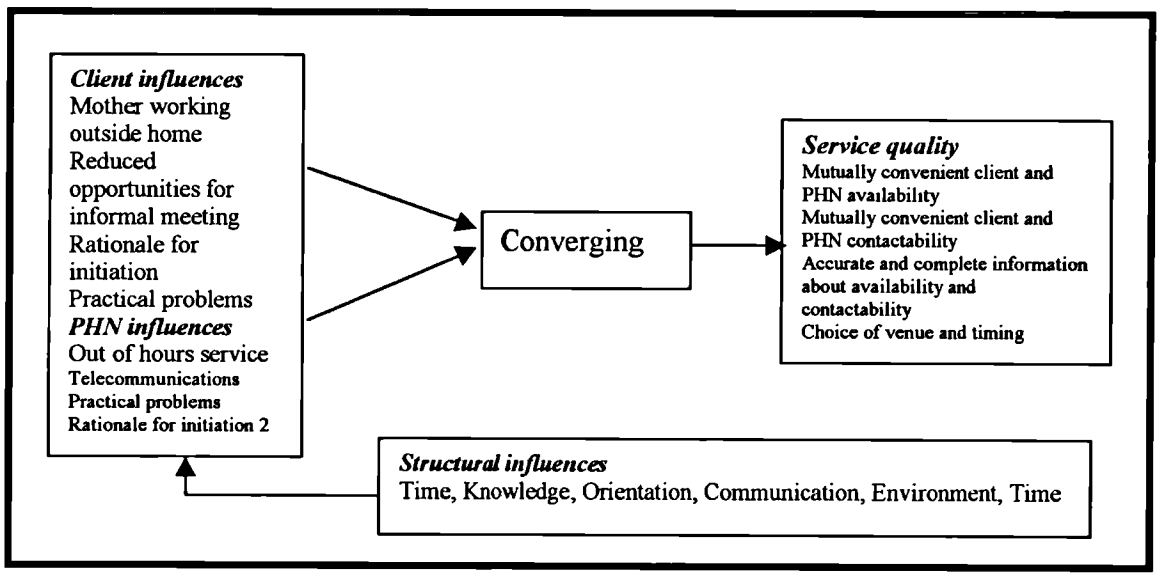
Problems in respect of contactability of the service are illustrated below using the experience of a mother with a newly adopted infant. The mother had adopted a baby from another country. On her return she went to her GP and he told her to contact the PHN "because you have to do that when you have a baby. It's the law". When the mother asked if everybody had to do this the GP replied "No. People who have their own children automatically get followed". The mother said, "that was the first thing that got up my nose".

> *Eileen: "I tried to contact them and it took forever. I must have made seven phone calls for someone I didn't want to see anyway because ...if they didn't want to come to me why should I be bothered with them?. {name of PHN} was the lady I met and she was very nice and everything but she wasn't given the correct information so it caused her awful problems. [*A receptionist at the health centre had written one digit of the telephone number incorrectly and*

had not written the house number down. Each subsequent time the mother rang she left her name but not the telephone number]. And she couldn't contact me and I was wondering why they weren't even bothered to ring me even once. Did they have a problem with it all ? or, they were so busy they couldn't do it ?. So, ...I thought the whole system was very bad that way... I wasn't happy with the set up. I feel maybe they are overworked or something ....I mean for the first few times after I rang I waited in all day to see if they would come .... But after that then I just used to go out and have my walk. It wasn't really my problem. [Indivclient3]

Although there were a number of aspects to this mother's experience that could be examined in greater detail, at this point the focus is on the step of converging. The above situation illustrates the importance of knowing how and where both client and PHN can be accessed. Although the situation above is focussed on convergence in a first initiation of the service, there were many examples provided by clients and PHNs where, despite the service having been initiated, contact did not take place. Findings relating to the step of converging are illustrated in Figure 6.8.

Figure 6.8 Influences on the step of converging



Clients spoke of the need to have information about the service itself and of the need to know when the service would be available, how they could contact the PHN, whether and when the PHN would return to visit, what clinics were available, and the times of those clinics. Mothers noted that if they had to take time off work to "go down and the PHN wasn't there" they wouldn't go again. At other times, the PHN and client said they sought out telephone contact either to make an arrangement for face-

to-face contact, or to have a telephone consultation. If this could not be accommodated then the quality of the service was understood to be negative.

PHN converging

PHNs also felt the quality of their service was impeded when mothers were not available to them. Demographic changes in the Republic of Ireland over the last decade have resulted in a dramatic increase in the proportion of mothers working outside the home (Williams and Collins 1997). Consequently, the public health nursing service may only be available at a time when mothers themselves are working and even making telephone contact in preparation for contact can be difficult. Comments in the survey questionnaire of PHNs as well as group interviews suggest that mothers are sometimes not able, not willing, or not entitled to take time off work to meet with the PHN. Infants may not be cared for in the family home and, in some cases, are cared for in crèches or in a child-minder's home outside the PHN's area. In such circumstances, it may be difficult or even impossible for PHNs and clients to meet. Sometimes, PHNs changed their practices so that these problems could be pre-empted and this is illustrated by the comments of the PHN below.

> *Maura: I find now I go to see mine before three months because they are getting ready to go back to work. Some of them, some of them don't take the extra month and it's even better to get them at around the 10 or 11 weeks. Otherwise they are gone and you have no way of contacting them. [GrpPHN3]

In the Republic of Ireland paid maternity leave is provided for eighteen weeks and, as four weeks must be taken prior to the birth, mothers who work outside the home generally return to work when the infant is around twelve weeks old.

Two aspects of the step of converging were identified as good service quality and these related to the times at which PHNs were available, and where the service was available. PHNs, in the survey questionnaire, identified "availability" of their service as a factor enabling them to provide a good quality service to families with infants. Sometimes, PHNs identified the availability of certain services (for example, clinics, health education) or aspects of the service itself (free, universal service) as good service quality. For some PHNs being "available" if mothers needed her or as "a

resource" to parents was a factor in itself enabling the provision of a good quality service.

Clients compared the public health nursing service unfavourably with other services when the service was not available when needed. Different levels of service availability were said to lead to good service quality and these ranged on a continuum from the PHN being available (for telephone or face-to-face contact) at some time over a few days, to being available in the evening and at week-ends. The level of availability that was considered to be necessary was influenced by the rationale for service initiation. Where the rationale for service initiation by the client was a non-specific and non-urgent need (e.g. getting the infant weighed, when to start weaning), a broad time frame within which the service was available could be constructed as good service quality. Where an infant or mother had a specific problem, the need for the service could be more immediate and urgent and, if the service were not available at that time, the client would use a different service. The quote from the mother below illustrates this difference.

> *Julie: Like I mean now ...when I go home if I have a problem like ...suppose I go home tonight and I have a problem with colic I won't be ringing my public health nurse. Like where is she? [Grpclient4]

The public health nursing service is generally provided in two main settings, the home and clinic. Both clients and PHNs consider home visiting an important hallmark of the service to families with infants. Clients' acceptance of the PHN into their home was in itself considered to be a measure of good service quality. Both clients and PHNs identified times where home visiting was necessary, although the home setting was not considered by all stakeholders to be always preferable to the clinic setting. Service quality was considered to be good when the service could be provided in the setting deemed most preferable for that particular contact. Benefits of home visiting for the PHN included "getting a clearer picture of the parent / child relationship" and being able to give "environmentally specific information and advice". Many PHNs said that, in the home environment, it was easier to give sufficient time to discuss issues arising with clients, and to provide a personalised service. Home visits enabled good relationships to be established. The "ambience in the home" was associated with having "a relaxed and informal setting" Benefits for

parents, identified by PHNs, related to confidentiality and being able to talk "more freely" in their own home, where they were "at ease". Clients said that when the PHN called to their home, particularly in the early post-natal period, it was "easier", "more convenient", "more relaxed", and more "personal". PHNs said it was important to the quality of the service that they could call to a client's home if they had specific concerns about an infant or mother. Some PHNs, however, said they were not able to do home visits sometimes because they had not enough time and some PHNs only did the first visit in the home setting. One client commented on the benefits of home visiting.

> *Brid: It is nice to get the visit at home really. Because, you know, I think you are more at ease in your own home really and you are more inclined to remember the problems you have in your own house. Whereas, if you have to come down - especially if you have a small child and you have questions, you are more likely to forget them. I think when you would come to a different environment you would forget them you are more relaxed in your own home really I think [Grpclient1]

PHNs did not believe that home visits were the most preferable setting in all circumstances and some felt that all infants should be seen in the clinic for their "official" visits. PHNs said it was "easier" and more "efficient" and there were "less distractions" for the mother when the visit took place in the clinic. Certain components of the service could only be undertaken in the clinic including the distraction test for hearing and weighing (unless the PHN had a portable weighing scales). The quote below illustrates this.

> *Brigid: I mean there are disadvantages in other children being around, or in trying to get a dinner or the telephone ringing or friends calling. I think, at least, if they are coming to the clinic, they come with this is the focus and this is where I am going and this is what it is about [IndivPHN 2]

A small number of PHNs said they sometimes did home visits even when they felt a clinic contact would have been preferable because the health centre was "inaccessible for clients", "unsuitable" or because they had "limited space". In general, however, where a PHN was impeded at this point in relation to the setting for practice it was that, despite wanting to undertake additional home visiting, they did not have the time to do so.

There is some agreement among stakeholders that being able to use the home as a setting for the delivery of the service is important, although there is also agreement

that, for some contacts, the clinic setting is preferable to the home. For any individual family, or for any individual contact, either home or clinic may be preferable. An accommodation reached regarding good service quality relies on the service being responsive to individual situations where choice regarding what is available and the setting for practice are mutually agreed between PHN and client.

Summary: converging

In summary, a second step in the pre-contactual phase of the process of the public health nursing service to clients with infants has been identified here as "converging". This step takes account of how PHNs and clients approach each other as well as the relationship between availability, contactability and service quality. A number of client and PHN influences on this step were identified and these were mothers working outside the home, the rationale for initiation, and practical problems due to the lack of an out-of-hours service and poor telecommunication systems. The absence of sufficient time to undertake home visits, and a lack of choice with regard to the setting for practice, were identified as negative influences. Indicators of service quality arising at this point include availability, contactability, and choice of place and time of contact.

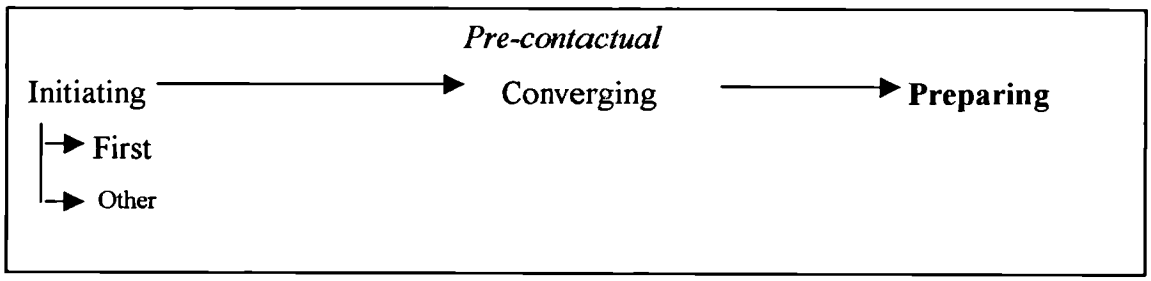
The five concepts of time, knowledge, communication, environment and orientation also emerged at this step as key influences on constructions of service quality. Knowledge about when and how to contact PHN and client, the availability of the service and knowledge about the level of contact expected was necessary. Time also featured in the step of converging. The absence of flexibility in PHNs' working day meant that arranging a suitable time for contact was often difficult. A defining aspect of any given problem can be related to its urgency and the time frame within which it needs to be resolved. Having time to carry out home visits was identified as central in providing a service of choice. Three aspects of the environment, material (where good telecommunications were crucial), personnel (where competent receptionists/ secretaries may be necessary, where demographic elements such as mothers working outside the home can make converging impossible) and structural (where either home or clinic contacts may be preferable) emerged. The orientation of the service was also an issue at this point. Where both PHN and client understood the focus of the service

to be towards supporting the individual family, there was likely to be greater flexibility and responsiveness in terms of converging.

6.2.3 Preparing

The final step in the pre-contactual phase is "preparing" for contact although this step is not necessarily undertaken by all PHNs or clients.

Figure 6.9 Pre-contactual process: Preparing



Some PHNs and some clients made preparations for the contactual phase and differences between first and re-initiation steps of the process were again seen at this step. PHNs' preparations were underpinned by a desire to ensure that the service was well received by the client and included making appointments, selling the service, and identifying information about the family. Clients identified times they undertook preparations for both attending the health centre and when the PHN called to the home. Preparations for attending the health centre were generally identified as being able to get to the health centre while those in the home were generally concerned with presenting a positive image of themselves, their family and their home.

PHN preparations

Practical PHN preparations were mainly identified through non-participant observation. When PHNs received birth notifications, they looked to see if they already had information about the family and this sometimes enabled them to identify inaccurate or incomplete information on the birth notification. When the infant was about three months old, PHNs sought out information from mothers regarding

whether she had or would be going back to work so that "converging" during the next phase of the process would be facilitated.

When mothers and infants were expected at clinics some PHNs would take out the "green card" as a reminder that they wanted to see that infant. If the infant did not come to the clinic the PHN then followed up on this, sometimes with a home visit, other times noting on the card that the infant had not arrived and yet other times, by contacting the family and making an alternative arrangement to see the infant. Sometimes, PHNs sought out health promotion literature or other resources to give to parents. All this was done in preparation for the contact. When these preparations enabled the PHN to be knowledgeable about various aspects of the client's situation, the service was understood to be good quality by key stakeholders.

Other more formal preparations for contact were also made. Some PHNs made appointments to visit at home or for the mother and infant to come to the health centre for clinics. In the absence of clerical personnel, PHNs did this themselves. Where clerical officers were available, PHNs said it facilitated good service quality because the appointments went out on time and also, because it enabled them to use their time for direct client care. Appointments were constructed as enabling good service quality when they were negotiated between client and PHN, when they were mutually convenient, when clients were given sufficient notice and when they were responsive to immediate need. One PHN noted that the public health nursing service was almost the only health service where people could be seen immediately they initiated contact.

Clients were not unanimous about the need for appointments and at one group interview it was a source of disagreement between two mothers. One mother said the PHN should not call to her home without an appointment, another indicated that "she could drop in whenever she liked". Where clients are given appointments they want the PHN to come (or to be seen at the clinic) at the appointed time. They also want sufficient notice of the appointment. One mother told of how she had received two appointments over a two-week period while she was away on holiday and consequently neither was kept (See Appendix 18). Others told of being kept waiting

for a long time at developmental clinics and felt that was poor service quality. Managers said appointments helped PHNs because it reduced the number of non-response (no replies) when they called to the home. Some PHNs always made appointments while other PHNs never made appointments. Some PHNs said that making an appointment made it easier for mothers to have their questions ready for the PHN so that "they didn't forget the things they wanted to ask".

The extent to which making appointments is a feature of the public health nursing service was investigated using the questionnaire survey of PHNs. Two questions on the survey questionnaire asked PHNs to identify the percentage of time they made an appointment to visit the home prior to the first, and then, subsequent contacts. A pre-coded format was used and they were asked to indicate whether they made an appointment 0-24% of the time; 25-49% of the time; 50-74% of the time or 75-100% of the time. A total of 593 respondents answered the question relating to the first visit and 594 responded to the question relating to other times. Three and two respondents respectively said the question was not applicable to them (Figure 6.10).

Figure 6.10 Percentage of PHNs who make appointments prior to first and other contacts

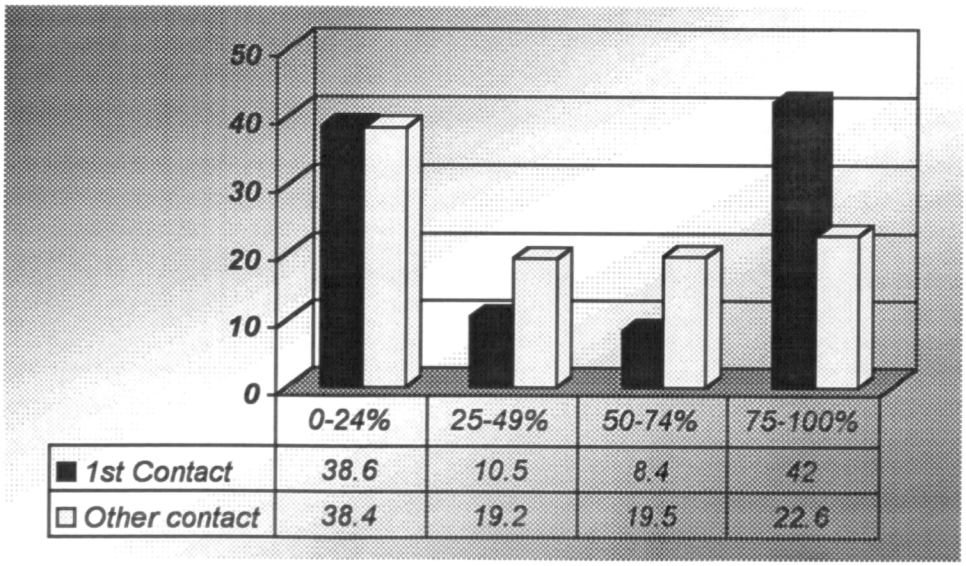


Figure 6.10 demonstrates that about one quarter of PHNs do not usually make appointments for any contacts. More PHNs made appointments for the first contact than for others and differences between first and other appointments were statistically significant ($x^2 = 280$; df 9; $p = .000$). Sometimes, PHNs reported they did not make appointments because clients did not have telephones. At other times, anxiety about the care of the children was identified and an appointment in those situations would, PHNs reported, be unproductive because the parent would not be there, would not answer the door, or would have made an "exceptional effort" to ensure the home situation appeared satisfactory. The exceptional nature of the first contact within overall contact is again highlighted at this point by the polarisation of the extent to which PHNs report they always or almost always make an appointment for this contact (42%) or never or almost never make an appointment (38.6%).

Client preparations

Clients also made preparations prior to contact with the public health nursing service and while some mothers felt it was very necessary, others disagreed. Some clients said they usually tried to get someone to mind their older children while they came to the health centre with the new infant while others indicated their partner took time off work in order to attend with them. This was particularly the case if they felt the PHN would be focussed on "finding fault". Some clients said it was important to make sure that everything was "right" for the PHN coming to the house although sometimes mothers said they "couldn't be bothered" because they had "so many other things to do" and because they were so "exhausted" after the birth of the baby. Some mothers said they would feel "under pressure" if they did not know she was coming because they liked to be ready for her. Others said they "didn't need to know" and that she could come "whenever she was passing".

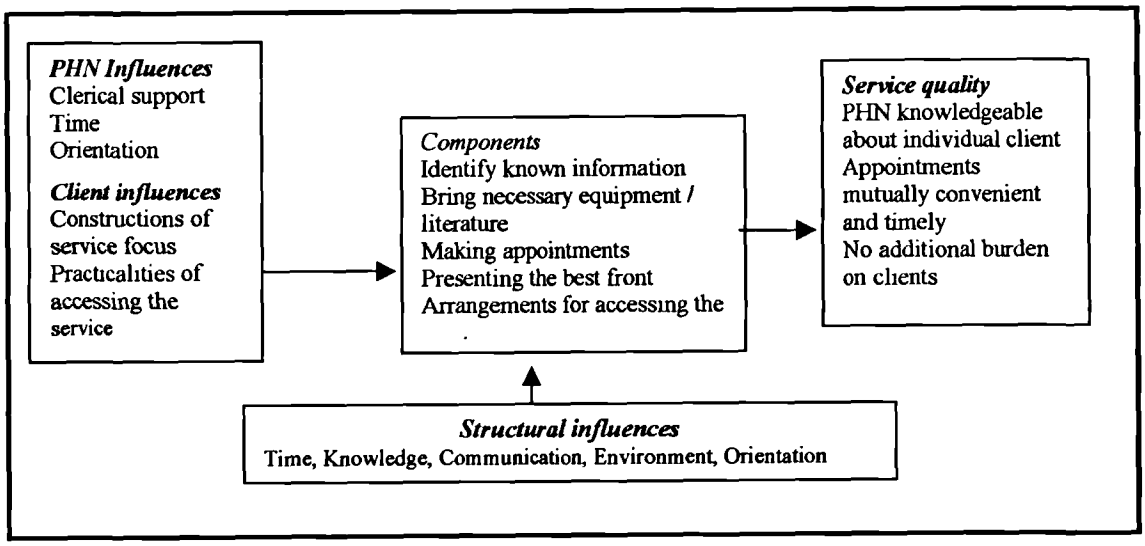
There is a tacit acknowledgement within the public health nursing service that some mothers, at least, do undertake some preparation for the arrival of the public health nurse. Further, there is evidence to suggest that such preparation is linked to the client's construction of the orientation of the service. One manager said,

> *Maureen: Like people do perceive you as a threat and they say "oh I haven't the house ready". And some say it spontaneously - "I am not ready for you" particularly the first [time]

mother and she doesn't know what your role is or else she thinks you have a checking role. [Grpman1]

To summarise, the findings from this study show that in the overall process of the public health nursing service to families with infants, there is a step of preparing for contact. The importance of sending out appointments to enable clients to get time off work, arrange for a partner to accompany them, arrange for other children to be cared for, or ensure that the house was clean and tidy was highlighted. For PHNs, having enough time to make and send appointments and having up-to-date knowledge about the family situation was identified as good service quality. These findings are now summarised in Figure 6.11 where influences, components and indicators of service quality in the preparing step are presented.

Figure 6.11: Preparing for contact



6.2.4 Pre-contactual phase summary

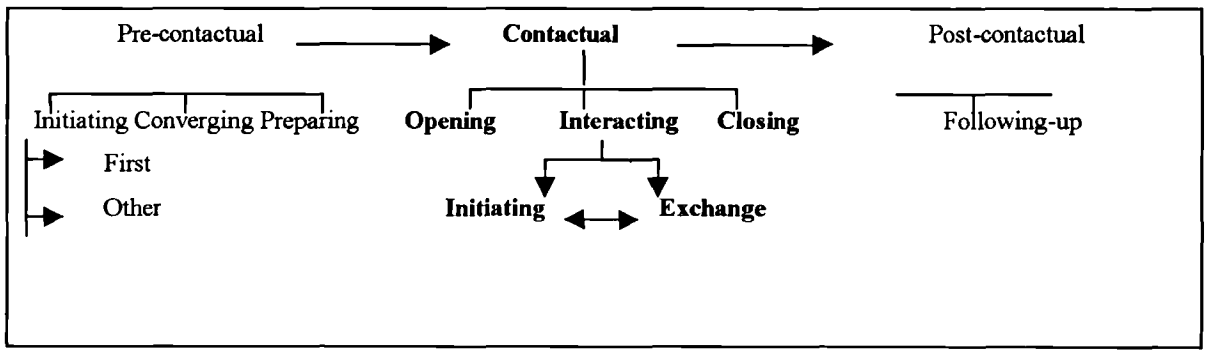
The pre-contactual phase has three distinct steps and these are initiating, converging and preparing. Each of these steps has been described above in thick detail and stakeholders' understandings of positive and negative influences on service quality at each of the three steps identified. There is consensus among stakeholders that these three steps form the initial part of the process and that they are important when examining service quality. Throughout each of these three steps, five key concepts emerged. These were time, knowledge, communication, environment and orientation.

At times, these concepts emerged as influences, at other times as consequences and at other times, as part of the process itself. For each concept, many concrete examples have been identified and these are summarised in the final paragraphs of each step. Key stakeholders draw on all five of these concepts in constructing an understanding of service quality. These five concepts were also central in the contactual phase and this phase of the temporal trajectory is now described

6.3 Contactual Phase

The contactual phase represents the second point on the temporal trajectory and follows from the pre-contactual phase. It refers to the time of face-to-face or direct telephone contact between PHN and client. This phase also has three steps and these are opening, interacting (including initiations and exchanges) and closing. Interactions form the substance of the contactual phase and each phase usually has a number of interactions. Figure 6.12 illustrates this phase in the overall process of public health nursing.

Figure 6.12 Contactual phase



6.3.1 Opening

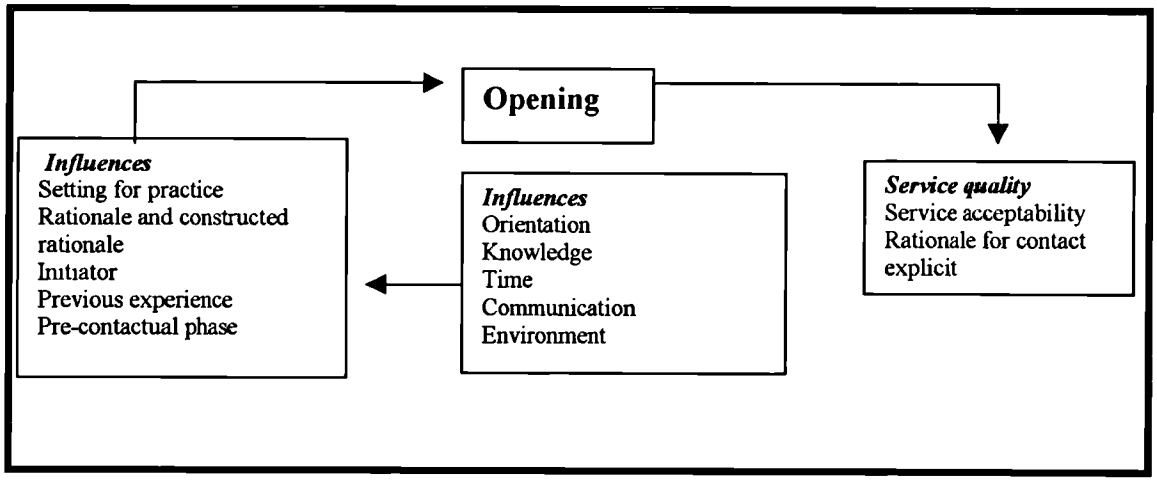
The step of "opening", the first in the contactual phase, takes place when PHN and client first come in either direct face-to-face, or telephone, contact with each other. In some situations this step may be subsumed within an interaction. This quote from a mother shows how the opening step in the contactual moment may form part of an interaction and may be as uncomplicated as a single question to a mother. Despite this, it can positively influence clients' construction of the service.

> *Bernadette: I just found she had an airy manner and you know lovely ...., down to earth and she said and "Hi [client name] and how are you ?". You know they all ask after the baby but "how are you"?. I thought it was a lovely start [Grpclient1]

When PHNs called to a client's home and were not welcomed in, or were asked to come back at another time, PHNs said they were "uncomfortable" and this influenced the way in which they proceeded with the contact. Influences on understandings of service quality at this step were identified as the setting for contact, constructed rationale for contact, clients' and PHNs' knowledge of each other, and by the outcome

of previous interactions. These influences can be taken account of during the pre-contactual steps of initiation, converging and preparation. Where appointments had been made prior to contact, for example, the opening step of the contactual phase was generally said to be easier. Where advice given during a previous interaction was successful in meeting a need, the client was more likely to welcome the PHN. When clients came to the health centre, "opening" was easier for them if they knew the PHN. A summary of the influences and indicators of service quality at this step are illustrated in Figure 6.13

Figure 6.13 Influences and indicators of the opening step



Sometimes, if entry is not successfully negotiated, the PHN may feel uncomfortable about the overall contact. The constructed rationale for service initiation can influence how opening takes place and where the rationale for contact is not clear and explicit, mothers can question the PHN about her reasons for calling. Although this is not a common occurrence in areas where PHNs are known in the local community, it can happen as the following exchange between two PHNs with more than fifteen years' experience working in the same rural areas illustrates.

> *Una: She met me in the hallway and said "are you checking up on me? Do you feel I am not doing a good job"?
> *Jean: Well, the only one I ever got that from now was [name of person]. They didn't want their children on any records and that's years ago.
> *Una: But I'll be going back again soon now you know ...but you don't feel comfortable going in. [GrpPHN2]

Both PHNs and clients said that when the PHN had worked in an area for a long time the PHN was often already known prior to the first contact. The opening step is also

influenced by prior experiences of the service. One mother told of how, following her initial "pretty horrific experience" with the PHN, she did not allow the PHN entry to her home again. While the PHN did continue to have telephone contact with the client she did not get past the opening step and, at the time this interview took place, the PHN had not gained re-entry to the home. The mother said

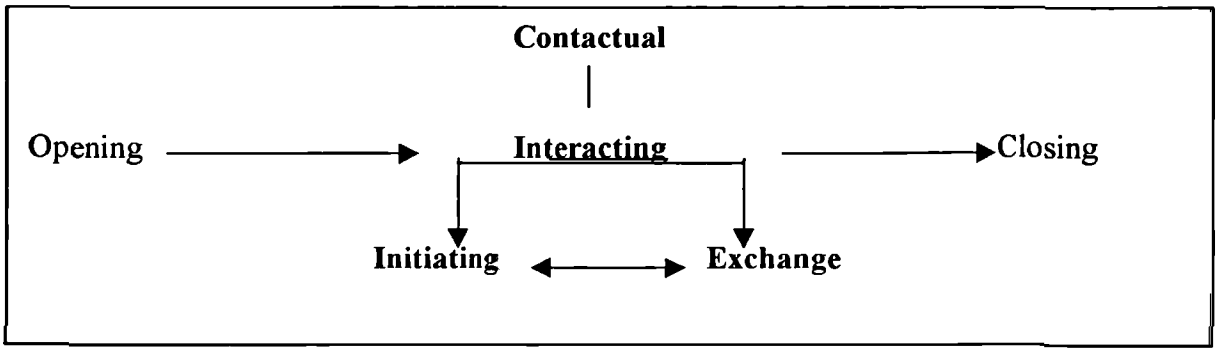
> *Jill: "A few times after that she would ring and ask if she could come and I just couldn't face her. I used to just say no. There is no need" [Grpclient4]

In summary, the opening step in the process of public health nursing to families with infants takes place at the beginning of the contactual phase. Sometimes, this step may be subsumed into the second step of an interaction although, even in those circumstances, it can influence constructions of service quality. The setting for practice, rationale and constructed rationale, initiator of contact, and previous experiences of the service were all found to influence this step. Structural influences in the pre-contactual phase, therefore, also impact at this point. Clients sometimes challenge PHNs about their rationale for contact and this may be related to the client's understanding of the focus of the service. PHNs who are known by the client and who have spent a long time working in a particular location are less likely to be challenged according to data in this study. The environment for practice was a key influence at this point and PHNs were more likely to have to explain their presence when they called to a client's home. The way in which both PHN and client communicate during this step emerged as an influence on how service quality is understood.

6.3.2 Interacting

The second step in the contactual phase is named interacting and this step forms the substance of the contact between PHN and client. Generally, each contactual phase has a number of interactions. In the context of service quality each interaction has two parts, one related to initiation and the other related to exchange. These are presented below in Figure 6.14. Service quality can be influenced at either initiation or exchange.

Figure 6.14 Contactual phase: Interacting



6.3.2 Initiating an interaction

Initiating[1] an interaction refers to raising an issue or topic for exchange within the interaction. It shares many common features with the initiation of service process (i.e in the pre-contactual phase), particularly the influences on service quality. Its importance lies in stakeholders' willingness to raise any particular issue, question or topic as a focus during the interaction. Where stakeholders construct circumstances at the time of interacting as poor quality, a particular issue (irrespective of whether it is considered important) may not be raised.

Key stakeholders identified good communication at all times, but especially during the initiation and exchange of an interaction, as a key influence on constructions of quality and crucial for the assessment and identification of need. Skills associated with communication and counselling were identified as being particularly important. When clients found it "easy" to talk to the PHN they said they could ask her "anything". Some PHNs were easier to "open up to", to ask questions of, and "listened" to what was being said. When PHNs communicated in a way that was perceived as "nice", "friendly", "kind", "helpful", "attentive" and "interested",

[1] I have given consideration to whether the "initiation" of an interaction should be re-named in order to reduce the likelihood of confusion with "initiation" within the pre-contactual phase of the process but have decided against it. Each interaction has a clearly identifiable set of circumstances that can support or impede the introduction of a topic for discussion and, for that reason, I believe initiation to be the appropriate terminology for use here.

mothers constructed the service as good quality. PHNs, PHN managers and many clients made reference to the PHN "passing on tips" between mothers, of "learning from mothers" and of "picking things up from others" suggesting a two-way communication between client and PHN. There was a general consensus that when clients were able to ask questions or initiate an interaction, service quality was constructed as good. Some PHNs directly linked this to the amount of time available. The following exchange took place at a group discussion between PHNs.

> *Maura: It's a good reflection on you and on the public health nursing service that they feel they can ask you basic things that they would be embarrassed to ask their friends.
> *Nora: Yeah. But I feel the first visit is really crucial and most of my first visits take about an hour and a half because of all the questions they ask. But I feel if you take your time and answer them, then, they feel, well then they have no difficulty in asking you again. [GrpPHN3]

Clients also said they needed an environment that was calm and uninterrupted and that they needed the PHN to be available to them and not too busy to respond to questions raised. The following client noted that it had been very quiet when she had been at the clinic and that was unusual. She considered it good because she was able to ask questions.

> *Marian: Yeah - it happened to me one of the days when I was down there about three weeks ago and I was the only one there. I took off the nappy and the clothes when she needed to weigh her and put back on the clothes. And I was the only one there it was really strange and it was grand. I was able to ask, ...you know the few questions and stuff. You know what I mean? There were questions that I was able to ask. [GrpClient2]

Home visits are generally considered to be more "intimate", "client-focussed", "one-to-one", "private", and "calmer" than clinic visits and this influenced all stakeholders' constructions of service quality in a positive way.

When PHNs or clients initiate an interaction there is an expectation that it will result in a satisfactory conclusion or at least proceed to the next part of exchange. When this does not happen, service quality may be understood as being negative. The vignette below demonstrates how difficult it can be sometimes for mothers to raise issues in an environment where there is a lot of activity and the PHN is distracted by other things.

Vignette: Initiation part of interaction

Jennifer (three months) was on the weighing scales, Darren (four years) was playing on the ground with a baby arch toy. Outside a baby was crying. Brigid, the PHN turned to Mary (the mother) and said "she's a fine size now. And Darren - how old is he ? Mary said "he's four but he's having". Then the phone rang. Mary took Jennifer off the scales. When the PHN came off the phone, she said "oh what was the weight again?" Mary put Jennifer back on the scales. The PHN noted the weight and wrote it down on the green card. She said to Mary - "she's a fine size now - what about Darren?" Mary said "he's four but he has a bit of a constipation problem". The door opened and another nurse put her head around and said "can I talk to you?". [Write-up notes, CSS2, Date 4th May 2001]

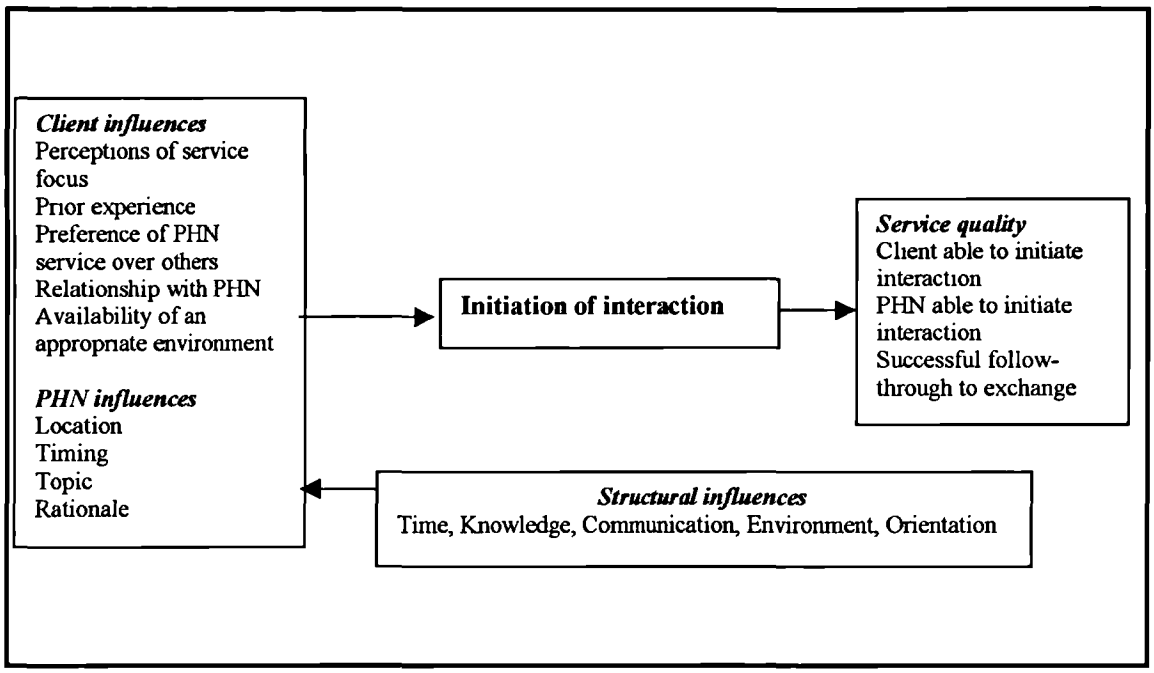
The mother quoted below was successful in initiating an interaction, but when the PHN did not follow-through with an exchange considered satisfactory by the mother, she said she viewed this as poor quality.

> *Kerry: I had the eldest fellow who is nearly three with me and I just mentioned that his appetite was gone and ...she said nothing at all like - she just said "yearra he looks very healthy - he looks grand". She didn't say to me now "you might call back another day with [child's name]" or she didn't say anything really. [Indivclient4]

Factors influencing PHN initiation in the pre-contactual phase also influence the initiation of an interaction. Responding to client need, having certain information about the client and having enough time all contribute to understandings of good service quality. PHN initiation of an interaction was also influenced by the time at which the contact took place as well as its content. PHNs said they would, or would not, raise certain issues at particular times irrespective of whether it was policy to do so. One PHN, for example, said that although she knew "management" expected her to talk about preventing sudden infant death syndrome to all mothers of new infants, she would not talk to a depressed mother about it. Another PHN said she gave parents as much information as she could on the first visit because she knew she would not get back for another visit. Others said they only raised a small number of issues at the first and second contacts and gave a small amount of information each time because mothers could not take everything in. This was particularly the case with sensitive

issues such as incontinence and contraception. A summary diagram of the initiation part of the interaction is presented in Figure 6.15

Figure 6.15: Initiation of interaction



In summary, initiating an interaction forms the first part of an interaction within the contactual phase and can be influenced by many different factors relating to the concepts of time, knowledge, communication, environment and orientation.

Exchange

Initiation is followed by an exchange between the PHN and client and is so named because each component generally involves "giving" and "receiving" by both PHN and client. Clients share information with the PHN and when the PHN responds, in a way clients perceive as beneficial, service quality is constructed as good. The PHN may examine an infant but an understanding of the infant's health and development, necessary for constructions of good service quality, also requires information from the carer. The PHN may give information but also needs to "check" that such information is understood by the client.

Within the exchange there are a number of key components and these link very closely with the needs of families with infants. These needs were identified in the pre-contactual phase and were broadly categorised as practical, physical, psychological / emotional, informational and financial. The exchange is framed by the way in which PHNs communicate with clients, and constructions of service quality are developed on the basis of the way things are said and done as well as what is said and done. Areas identified above relating to communication also apply here. "Orientation" of the PHN and client at this point is also crucial to constructions of service quality. Where clients identified the main orientation of the public health nursing service to be towards the identification of problems (medical, nursing or social), they were less likely to engage in "building a relationship". This is also true of PHNs. If the key focus was the identification of problems, then the provision of support and building a relationship were, if they took place, co-incidental to the exchange rather than core components. This compares with other PHNs who, in their constructions of good service quality, identified the relationship and "giving support" as central. Those PHNs actively sought out ways in which to build relationships and give support. These ways included having a lot of face-to-face, or telephone, contact in the early stages, by "selling" the service and by encouraging clients to avail themselves of the service whenever they needed. When PHNs felt a good relationship was necessary but were unable to have sufficient contact to develop this, they said they were "frustrated" and that they were not providing a "good quality" service.

The key components within the exchange identified by PHNs, PHN managers and clients include

- Building relationships
- Support
- Giving advice and information
- Assessment and identification of need
- General need
- Maternal need
- Infant wellbeing, growth, development, neglect and abuse
- Practical help.

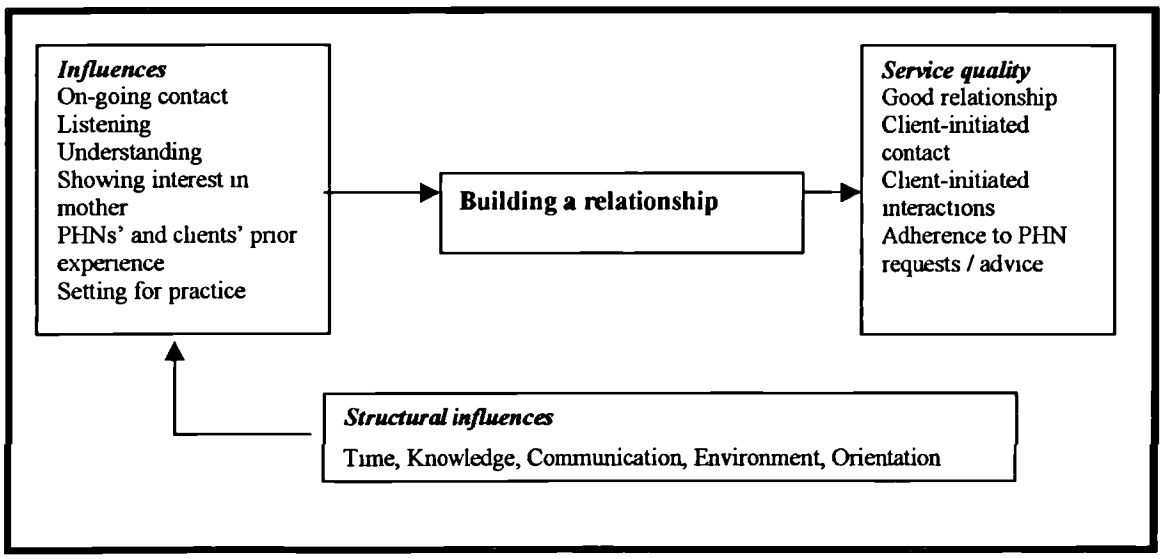
Findings related to each of these components are now presented and the ways in which they are influenced identified.

Building a relationship

Having a good relationship was identified by many, but not all, clients, PHNs and PHN managers as a most important element in the provision of a good quality service. Evidence for this came from a number of different sources including the national surveys, group and individual interviews, and non-participant observation. In response to an open-ended question, "what factors contribute to a good quality service?" on the survey questionnaire, more than fifteen percent of respondents (n = 83) wrote of the relationship between themselves and mothers. Some PHNs simply wrote "the relationship", " a good personal relationship", or "a good working relationship", without any further explanation, suggesting that the need for a good relationship in the provision of a good quality service is self-evident.

There was a general consensus among PHNs, PHN managers and clients, however, that a good relationship had to be "built", "developed", "established" and "formed" and that this development was both dynamic and continuous in nature. Building a relationship is complex and takes place over time. Figure 6.16 provides an overview of the components of, and influences on, building a relationship and identifies the indicators of service quality associated with this.

Figure 6.16 Building a relationship



Although the first contact between family and PHN was identified as being important to relationship development because of the influence of "the first impressions", on-going contact was also considered essential. Key stakeholders all considered a single contact between PHN and client as insufficient to build a relationship, and PHNs, particularly, identified problems in this area when there was not on-going contact with parents.

> *Stasia: You [speaking specifically to the other PHNs in the group] have built up a relationship and you have seen subsequent children or, have had ... you know, built up a relationship with a lot of the families that you visit. I mean the last place I was working I was the fourth public health nurse in four months and it was impossible to build up a relationship. [GrpPHN2]

On-going interaction on its own, however, was considered insufficient to build a relationship. PHNs said that understanding and listening were key elements of relationship development. Understanding parents' needs, fears, and pressures as well as empathising with them were all identified in the context of building a relationship. Listening and understanding, important for all elements of the service, was considered an especially important element of the relationship with families. PHNs in the survey questionnaire wrote that there was a need for "active listening", a "listening ear", for being a "good listener", and for "listening to the mother".

Both clients and PHNs identified the home setting as facilitating the development of relationships because of "the time" available as well as the "ambience". Responses to the questionnaire survey by PHNs identified "being able to give more time in the home environment" and being able to provide a "more personalised service in a relaxed and informal setting" as key influences facilitating a high quality service. Other benefits identified included "getting a clearer picture of the parent / child relationship" and being able to give "environmentally specific information and advice". Benefits identified by PHNs for parents related to confidentiality and being able to talk "more freely" in their own home when they were "at ease".

Mothers said that when the PHN understood their problems and was interested in them, building up a relationship was easier. The following quote from a mother demonstrates the need for building a relationship as well as the consequences of having a relationship.

> *Ann-Marie: But, if you had a nurse that you were able to build up that kind of a relationship with them, like .... if you saw them more often, you could probably utilise the nurse far better. If you were able to be confident and comfortable going in, to be able to say "Look like" [challenge the PHN]. And even if you thought of something and you were able to say "do you mind if I ask?" and know that she isn't going to run you. [Grpclient2]

A number of clients made reference to PHNs' own personal circumstances that made them feel the PHN was more likely or less likely to understand the situation they were in. Where PHNs indicated to client they had children of a young age or had breast-fed their own infant(s), clients felt they "knew what it was like" and that they were "pulling and dragging like the rest of us ". PHNs also said they drew on their own personal experience of, for example, breast feeding, post-natal depression or being a working mother, to empathise with the client.

Although there was consensus around the need for a good relationship, there was not consensus around what that relationship should be. Clients, for example, sometimes qualified their remarks about the importance of the relationship by differentiating between professional and personal relationships. This client, Deirdre, was generally very positive about the public health nursing service, said she had a good relationship, and that she had received a good service. In respect of the relationship, however, she identified the lack of certainty that emerges in respect of knowing the relationship boundary.

> *Deirdre: They don't actually get close you know what I mean?. They don't actually get close. Well, I know you don't have to get to know them personally but you can like. They have to draw the line somewhere ...like you know what I mean. But they don't actually get close at all. It seems like a job like - I know it is a job like [Indivclient3]

A PHN manager also raised this as an issue in telling how one PHN did not want to refer a family with an infant to the social work department. The manager said,

> *Maeve: "She had a job to do - that is what she was going in there for. If you don't respect the personal - professional boundary you can have big problems".
> [GrpMan2]

PHNs identified the relationship in terms of "friendliness" and "getting on well with" the people.

The client-professional relationship has been the subject of considerable theoretical development and its complexity is acknowledged here. In the context of this study,

where the key issue under examination is service quality, there are two aspects of the relationship that are important. First, relationships between client and PHN are dynamic and continuous in nature and consequently must be "developed" and "built". Such development requires sufficient contact between PHN and client as well as a conducive environment. In the absence of sufficient contact between PHN and client, the public health nursing service may be constructed as concerned only with the identification of problems and not with the provision of support. This construction is also influenced during an interaction by the way in which the PHN communicates with the client. For some PHNs and clients, therefore, building a relationship may be identified as an indicator of good service quality.

The vast majority of PHNs (86%, n = 513) responding to a survey question indicated that building a relationship was "very central" to providing a good quality service. A finding, however, that fourteen percent of PHNs construct building a relationship as other than "very central" means that for a minority of PHNs the relationship is less important than other factors. In such circumstances the focus of the service will be different.

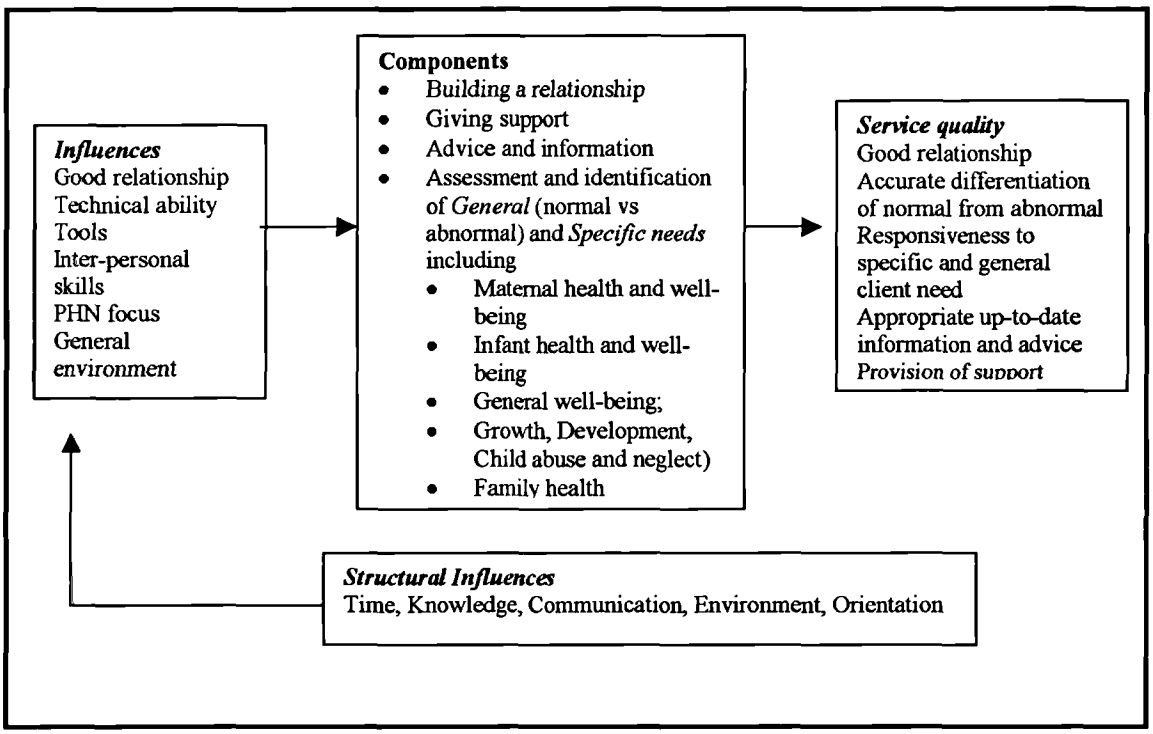
The second issue arising in respect of this study is the categorisation of the relationship within the context of quality in the public health nursing service. A good relationship can be a pre-requisite for initiation of the service or an interaction and can, for example, be deemed necessary for sharing certain information between client and PHN. Clients are more likely to raise certain issues, give information, and use information provided when there is a good relationship. Building a relationship, however, can be understood as a component of the exchange that requires the same commitment as all other components of the service. Finally, a good relationship can be understood as a consequence of the contactual phase. When the relationship is constructed in this way, there is a tension between a "professional relationship" which can be understood as a mechanism through which other elements of the service can be delivered and a "befriending" relationship where the focus is on providing friendship. Although there can be considerable overlap between these two understandings of the relationship, it is possible to identify different client and PHN

expectations. This can lead to different understandings of what constitutes "a good relationship".

Other components of the exchange

The remaining elements of the exchange are now presented by examining each individual element in terms of its influences on, and consequences for, constructions of good service quality. An overview of these elements is presented in Figure 6.17

Figure 6.17 Components, influences and consequences of the exchange



Giving support

PHNs said support was an important element of the process of public health nursing and almost 84 % (n = 515) of PHN respondents in the questionnaire survey identified it as being "very central" to the provision of a good quality service to families with infants. PHNs said that three factors made it possible to give support to people and these were, people could self-refer to their service, the service was free at the point of delivery, and the PHN did not have a waiting list. These factors arise as a direct consequence of public health nursing service policy where there is a commitment to a universal and localised service. The absence of a waiting list means that there is potential for giving support because the service can respond to immediate need. There

is no direct financial cost to the family with an infant who accesses the public health nursing service and this may make the service preferable to others. PHNs identified other factors as also assisting them in supporting mothers and these were the timing of their involvement with families (when they were most vulnerable) and the PHN's educational preparation, particularly in respect of listening skills.

Having a good relationship and providing support were inter-related. According to PHNs and PHN managers it was easier to give support when there was a good relationship with the client. The quote from this PHN demonstrates this.

> *Josephine: You know, you have a chance to build up a good relationship with them because you are meeting them at their most vulnerable when they need most support. Especially first time mothers and they are grateful for just somebody to talk to or even just somebody to chat to .... I suppose we are very easily accessible because, ... like other disciplines might tell you they have waiting lists. But public health nurses shelve everything for new mothers and get to see them within a day or two and if they have any problem at all we are on the end of a telephone. Which I think is a great service even if we can't get to them every day, particularly if they are breastfeeding mothers. It gives them that bit of support. [GrpPHN1]

PHNs' comments also showed that as well as being associated with relationships, support was sometimes synonymous with advice and this was particularly the case for clients. PHNs, in the questionnaire, wrote of the "role of PHN in offering support and advice", and of the "availability" of support and advice in their definitions of good quality. All five concepts of time, knowledge, communication, environment and orientation are important influences in the provision of support. The availability of the PHN is directly related to "time" and the "environment". If a client cannot make contact with the PHN at a time they need support then an opportunity for the PHN to provide support is missed. The step of converging in the pre-contactual phase is, therefore, particularly important at this point. The PHN must have a similar understanding of the focus of her role to that of the client. Giving support requires the PHN to be orientated towards pro-actively seeking ways in which the client can be assisted in parenting rather than being concerned solely with the identification of problems. Finally, support cannot be provided in the absence of an ability to communicate well.

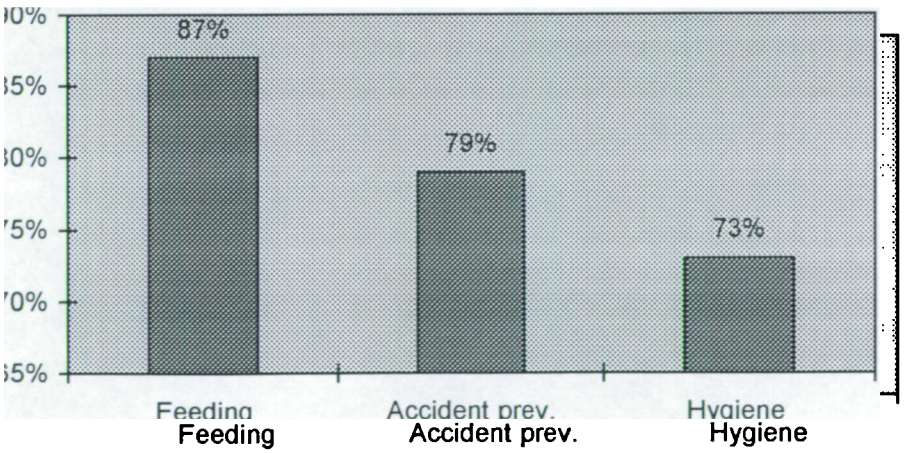
Influences on support
Time, knowledge, Communication, Environment, Orientation

Giving advice and information

Giving advice and information were identified as core activities during the contactual phase. PHNs said that the advice given was contingent on their own knowledge base and areas specifically mentioned included advice on feeding, accident prevention, immunisation, hygiene, stimulating the infant, and other services. Many clients referred to areas around feeding where they felt advice was needed, and non-participant observation at baby clinics identified infant feeding issues as those most commonly discussed. These findings noted that maternal concerns about feeding were both immediate (for example, "he just won't take a bottle for me") and longer term (for example, "when should I start him on jars?"). Maternal and PHN concerns during an exchange often focussed on the amount of feed taken, the frequency of feeding and on the substance of what the infant was fed. Mothers said that they preferred to discuss infant feeding problems with their PHN rather than their GP because they were "very good in that area".

Advice is also provided in other areas. In the questionnaire survey of PHNs, questions were asked about the centrality to a good quality service of advice on feeding, hygiene, and accident prevention. Figure 6.18 illustrates the percentage of PHN respondents who indicated that these three areas were "very central" to the provision of a quality service to families with infants.

Figure 6.18 % respondents indicating advice was very central to a quality service



Advice can be directly linked to, or even synonymous with, information although findings from this study suggest that PHNs interpret them as distinct. Information may be thought of as provided for clients in a non-directional way so that they can come to their own decisions. Advice, however, includes an expectation that a client will receive certain information and make certain decisions consequent on receiving it.

In general, PHNs said that although they were in a "prime position" to provide information because they were on the "front line for contact" for families, they were conscious of not "bombarding" people with lots of information. A number of PHNs raised issues about client literacy levels and suggested ways in which written information can be made more accessible to clients. Clients identified a need for information to be specific to their particular situation (for example, first infant, living in isolated circumstances) and the importance of the PHN knowing these circumstances was highlighted by stakeholders.

> *Margo: You know, oh you get caught up in all this preventing of things happening so much so that you get neurotic about things.... I mean with the first one you don't use your common sense unless someone comes in and tells you it is something very simple. You don't really. [Indivclient3]

Understandings of service quality at this point are directly influenced by the knowledge base of the PHN. If the PHN does not have sufficient, "up to date", "relevant" and "evidence-based" information, she is not in a position to provide it for the client. If the advice or information is not given at the time it is needed, it will not serve its purpose. Structural influences at this point therefore include PHNs' knowledge, as well as the factors that influence availability, particularly time and environment.

Organisational Influences on giving information and advice
Time, Knowledge, Communication, Environment, Orientation

Assessment and identification of need

PHNs, PHN managers and clients identified assessment and identification of need as two key elements of PHNs' work with families with infants. Ways in which the assessment took place influenced constructions of service quality and communication was particularly important at this point. Identification of need was strongly influenced

by a knowledge base that facilitated differentiation between "normal" and "abnormal". PHNs, on the survey questionnaire, wrote of being "skilled in assessing what is normal and abnormal", of "having expertise in detecting deviation" from the normal, and of "distinguishing" between "normal and abnormal". They spoke of "knowing a house where there is something going on" and of "getting a feel for things". Need was situated within the broader environment and PHNs said that the local situation had to be taken into account when assessing and identifying need. For example, PHNs made comments such as "your idea of normality changes depending on the area you work in".

When assessing needs, PHNs, PHN managers and clients indicated that PHNs need to listen carefully and attentively to mothers and where they did not, "they missed out". This mother's quote shows the importance of PHNs listening to what is being said in order to be able to identify needs.

> *Margaret: I get the feeling very often when I am down there you get the feeling that they are under pressure ...they are caught up in the paperwork writing it down you know "are you still working fulltime?". Writing, writing, writing, and you know, ... they're missing out then [GrpClient2]

Issues relating to initiation of interactions were particularly important in respect of the assessment of need because if clients did not "open up" or if they felt the PHN was too busy, a need might be missed. Where a problem was identified during the course of an interaction, PHNs said that being able to communicate this in an acceptable way to clients was sometimes difficult but if it were not "done in the right way" clients could become very distressed. Some clients said that PHNs were very good at imparting knowledge and others suggested it was a "personality thing".

Specific needs

Findings relating to maternal needs were presented and discussed in the pre-contactual phase. These included physical needs (for example, "incontinence", excessive lochia, breast engorgement), financial needs ("sending them to MABBs" (the money advisory and budgeting bureau service), practical needs (for example, "the things they would usually ask their mother about"), and emotional and psychological needs (for example, post natal depression). There was general

agreement among all stakeholders that mothers have greater needs in the post-natal period and during the first year of an infant's life than at other times. Despite this, however, key stakeholders said that PHNs sometimes pay insufficient attention to this area. This client, Margo, who had experience of three different PHNs, noted that although the PHN had been helpful it was like drawing "blood from a turnip" getting her to be interested in her.

> *Margo: And I had three different public health nurses [because she moved area]. The first em ..like I didn't get on with at all and the second she was very very nice but all baby like. And .... I found like now this time ...I know it was like drawing blood out of a turnip first, you know, to get her interested in talking about me. Like ... because I was interested in me and in asking questions about myself like but ... I just wanted to for myself like I found her very helpful you know. [Indivclient3].

Having a focus on maternal need is not sufficient for service quality to be constructed as good and other dimensions of influence, particularly communication, are also important here. The mother speaking above wanted the PHN to "be interested in her". Later in the same group discussion this mother talked about the first PHN she "didn't get on with at all". She went on to explain why.

> *Margo: And she would come and ask you know - any tears today ?. Or, you know, sort of ... you know, and that really just got on my goat like it really just did. I turned completely off. [Indivclient3].

In that situation, the PHN did appear to have a focus on maternal well-being but the way in which this was communicated to the client led to a client construction of poor quality.

Sometimes, PHNs use tools to assist them in identifying needs and some PHNs said this helped them to provide a good quality service. Other PHNs said that such tools had the potential to "take from their own decision making". At the time of data collection for this study the Edinburgh postnatal depression scale (EPDS) was being introduced into one community care area and a number of PHNs made reference to it. PHNs were generally positive about its use and said that although they would be selective about when, where and with whom they used it, it had the potential to assist them in providing a good quality service. Having a choice about whether and when to use this tool was considered important by PHNs to service quality.

PHNs said that because they did visits in the home environment, they often became involved in the identification of broader family needs and, when these were uncovered and addressed, the service quality was good. Examples given included, "drinking problems", "the child not doing well at school", "the granny in the corner" and problems with "the tallyman" (moneylender).

Infant health and well being

Infant health and well-being was identified by clients, PHNs and PHN managers as a key focus for the public health nursing service. In the survey questionnaire, more respondents (90.2%, n = 583) identified this element of their work as being "very central" to the provision of a good quality service than any other element. PHNs, PHN managers and clients identified four specific aspects of public health nursing work in this regard. These aspects are assessment and identification of needs in respect of

- Infant wellbeing
- Growth
- Development (including gross motor, vision and fine motor, social development, and hearing and speech),
- Child abuse and/or neglect.

Infant wellbeing

The well-being of an infant provides a central focus for the public health nursing service. PHNs may actively seek out confirmation of an infant's general wellbeing by examining the infant or, alternatively, parents may identify specific areas they have concerns about (for example, rashes, sleeping problems, colic) and seek out the advice of the PHN. In respect of service quality, clients looked for evidence that the PHN was familiar with their particular infant and in that regard, they liked to see the PHN handle the infant and spend time with him/her. When PHNs did not take sufficient (or any) care in examining the infant, clients constructed the service quality in a negative light. Sometimes, parents identified areas they had specific concerns about, or the PHN identified them when assessing the infant. If the identified concern was deemed normal mothers could be reassured. If not, appropriate information,

advice or intervention, could be provided. If the concern was not correctly classified as normal or abnormal (for example, the parent was told the rash was normal when it was subsequently found to be eczema), then service quality was constructed as being poor.

Structural influences
Knowledge, Time, Communication, Environment, Orientation

Growth

Infant growth is a key indicator of infant wellbeing and weighing infants was identified as important in the provision of a good quality service. Mothers identified it as a rationale for interacting with the public health nursing service and they said that when the infant's weight was progressing satisfactorily they felt reassured. They said it was lovely to "be given a number" and that even though "you could see them growing [but] you'd still be anxious". A weight, they said, gave them a "good picture" of "how the baby was doing". When the nurse said the baby was under or overweight, they said it was very "disheartening" for them and this was considered poor quality. Some PHNs held weighing clinics where clients could attend without an appointment and in some areas, clients were encouraged to attend on a weekly basis. Mothers said that when the PHN brought the scales out to the house that they "really appreciated it" because it "saved them having to go in".

As with all other components, the way in which the process of weighing was carried out was important to maternal constructions of service quality. Mothers said it was very important that PHNs took their time over the weighing and that when the infant had been weighed they were given information about what it meant.

> *Katy: You get the feeling that they are under pressure and that they are trying to rush you out. You know they just rush you out and the baby is up on the scales and you are kind of looking yourself and you are dying to know yourself what the baby weighs but they are back off the scales again and you are saying "what's that?", "what's that?" [GrpClient2]

Some PHNs said centile charts helped them to provide a good quality service because they were able to use them to explain the weight of the infant to mothers, and keeping accurate records were considered essential. There was general agreement between PHNs, PHN managers and clients that when weighing an infant account should be

taken of the broader familial tendencies and when this was not done, the quality of the service was impeded. Finally, the technical ability of the PHN was identified as important. Where weighing scales were not calibrated or where clothes were not removed for weighing, the accuracy of the finding could be called into question. One PHN wrote of having to wait for "9 months for a portable scales to arrive". PHNs identified a lack of material resources available to them in the environment within which they worked as an impediment to good service quality.

Structural Influences on service quality
Time, Knowledge, Environment, Communication, Orientation

Infant Development

Assessment of infant development forms a key focus of contact between PHN and client that takes place at mandated times over the first year of life. As discussed earlier, these times are, on discharge from hospital, 3, 6, 9 and 12 months and there is therefore, a temporally driven urgency around carrying out these examinations. If the PHN does not carry out the three-month developmental examination when the infant is around three months old, the opportunity for that examination is gone.

Mothers said this component was an important part of the service because it reassured them that their infant was "doing fine" and that it was "nice" to know that their infant was "progressing normally". Specific aspects of infant development are identified on the PHN record and these include gross motor, vision and fine motor, social development and hearing and speech. Each one of these requires specific knowledge and skills on the part of the PHN and such examinations are carried out with the intention of identifying problems as early as possible.

Clients, PHNs and PHN managers all made reference to the difficulties in undertaking hearing tests in health centres, particularly in terms of sensitivity, specificity and positive predictive value of tests. Almost half (48.9% n = 300) of all PHN respondents to the survey questionnaire indicated they were "very unhappy" with their room for hearing testing. Despite recommendations elsewhere that such

testing be stopped (Hall 2002), hearing testing continues to form a central part of the developmental assessment that take place.

Non-participant observation at case study sites showed that each PHN generally follows their own routine in carrying out developmental examinations. Some examine the infant prior to undressing and weighing, others undress and weigh prior to the examination, and some do not undress (or only partially undress) the infant. Other aspects of the examination may also differ. Some PHNs incorporate developmental examination into an overall discussion with the mother while "holding and handling the infant at the same time". The mother quoted below describes this non-explicit assessment when speaking about an older child.

> *Marian: I have a three-year old and when [name of infant] was born she came to see him. And [name of three-year-old] was there and she was all chat to her And she was saying "did you have her back for her two year check. No?". So there and then [name of PHN] started talking to her and assessing her and all the rest of it and she said to me the next time now you come down to me with [name of infant] I'll check her out more thoroughly ....No, she was great. [Grpclient2]

Others prefer to make explicit each step as they carry it out. Sometimes as part of this *modus operandi*, feedback is given to the client. Feedback can be constructed as important in terms of service quality and operates in two ways. Firstly, good communication between PHN and client is an important aspect of the way in which the service is delivered and when clients feel the PHN is communicating well with them, they understand service quality as being good. Some PHNs, however, feel they need to make explicit each step they undertake because of the potential for "misconstruing" their focus within the examination. The following PHN manager noted that

> Eleanor: Unless that we actually get it across it is normal development that we are examining .... The child and its progression are OK and that its skin is OK and all that kind of thing. They actually nearly think you are out there looking for bruises. Unless you get across, unless you point out I'm examining your child now to make sure the reflexes are OK and I'm going to be pulling her up and turning her over to make sure the bum is OK and that it is actually normal development you are looking for. [Grpman2]

PHNs do not want to be constructed as professionals that are oriented only towards the identification of child abuse and neglect and the example above demonstrates

clearly how this can influence their practice. The need for knowledge in differentiating between normal and abnormal was identified earlier. The relationship between having knowledge and service orientation was highlighted by one mother, Eileen who had adopted an Asian infant from another jurisdiction. She told me during interview that before the PHN came to visit her she was fearful that the PHN (or other health personnel) would be unaware that Asian infants had a "mongolian bluespot" on their back and would think she had caused bruising. She had copied a page from a library book to give to the PHN when she came so that she would be able to "prove" that she had not hurt the infant. While this raises questions about the extent to which PHNs appear knowledgeable to clients, it also demonstrates the influence of knowledge (of the client about the PHN, of the PHN about the client) on the process of the public health nursing service at the point of interaction.

Development examination is temporally defined and the importance of having an adequate replacement service for PHNs was noted. In situations where PHNs were not replaced while on annual or sick leave, they noted that they "fell behind" with developmental assessments and sometimes the entire schedule was delayed, or assessments were missed entirely. The importance of the environment in supporting developmental assessment, particularly in terms of material (e.g. developmental assessment equipment) and physical (e.g. for having suitable rooms for hearing assessment) resources was also identified as a key influence at this point.

Structural Influences on service quality
Time, Knowledge, Environment, Communication, Orientation

Assessment of child abuse and neglect

PHN assessment of families for child abuse and neglect is a complex area that creates many dilemmas. PHNs have an explicitly mandated remit in the assessment and identification of child abuse and neglect, but they want clients to construct the orientation of their service as being broader than that. Findings from the PHN survey data suggest that three-quarters (76%; n = 444) of PHNs identified "checking for abuse and / neglect" as a "very central" part of their practice in providing a quality service to families with infants. Only 3.6% (n = 21) of respondents reported it was

not central. Within the process of the public health nursing service to families with infants this mandated remit features at each step. Where mothers constructed the orientation of the service as being concerned only with the identification of neglect and abuse they were slow to "initiate" or "converge" towards the service. Their preparations included ensuring that the family and family home appeared clean and well cared for. It influenced mothers in the way in which the contactual phase was opened, in whether they were welcoming towards the PHN or questioning her motivations. Finally, it influenced the way in which they initiated interactions and interacted with the PHN.

Data from group and individual interviews with PHNs and PHN managers showed that they were conscious that the service could be, and was, constructed by some mothers as having a single orientation towards the identification of child abuse and neglect. They were also conscious of the implications of this construction for their service especially with regard to the way in which the service was received. Consequently, in their interactions with mothers, PHNs seemed anxious to disassociate themselves from this area of their work. When speaking together in a group interview, they compared the acceptability of their own service favourably with that of the social workers (whom they said still had "the stigma of the cruelty officer") and noted the importance of being accepted by families in carrying out their work. The exchange between PHNs below demonstrates how PHNs acknowledge the potential for the service being construed as having a "supervisory" rather than "supportive" orientation as well as the ways in which they try to counter this in their interactions with families with infants.

> *Kathryn: Well to go back to that thing about supportive or supervisory .... I would be very unhappy if we developed into ....people who were seen as supervisors coming around or checking
> *Nora: So would I
> *Kathryn: and ..I think we would very quickly ...we would have the kind of social work appearance about us that we were ..coming for some sinister reason . I think the only the only way it can work for me personally is if I am going in a supportive, ...as I said, non-threatening way and, like I said, if there is a problem that I would pick up or that she tells me or whatever, I would normally try to work it through with her at some level rather than rushing in to refer it.
> *Nora: Oh I totally agree, I totally agree
> *Maura: I would never rush into referral
> *Nora: You know and I mean if we are saying as you say
> *Kathryn: Somebody that can be trusted
> * Nora: Yeah, somebody that can be trusted we have a far better role with childcare. [GrpPHN3]

There is a dilemma for PHNs in being able to meet their mandate to assess and identify child abuse and neglect in a small minority of families while, simultaneously, being able to provide a service that is non-threatening, non-intrusive and "trusted" by the vast majority of families. Some ways in which PHNs deal with this have already been identified. Other ways identified include:

- making an appointment (except in situations where they believed they would not gain entry)
- providing a choice of setting for contact (unless they felt they would not turn up)
- not disturbing the infant if the infant were asleep (except where they were "suspicious") and
- reassuring mothers that their main focus was in supporting them (except where they felt the "infant was at risk").

Having uniformity in the way the service was provided was identified by the manager below.

> *Maeve: Everything should be uniform so that you don't feel like well in my area now she never took off the clothes and that she is feeling now like "oh that nurse doesn't trust me now", where they look on examining the child as checking up on them. [GrpMan2]

Trust emerged throughout the data, from different sources and different data types as important. PHNs said it was difficult for mothers to trust them if they constructed the service as one of "policing and monitoring" rather than "supporting". They spoke and wrote of having to "develop", "gain" and "work on" trust between themselves and mothers. This trust was not unidirectional and PHNs also expressed a desire and a need to trust families in caring for their infant, in getting in contact with the service when they needed and also in terms of being competent parents. Mothers spoke of "trusting" their PHNs.

An understanding by clients of a public health nursing orientation towards child protection influences mothers in how they understand service quality by mothers. Parents may not complain about long waiting times, about lack of knowledge on the PHN's part, about incorrect information and advice, or about being dissatisfied with the PHN or the public health nursing service in general. A successful and good quality interaction between themselves and the PHN may be understood in terms of

not having had any abnormality or deviation from the norm identified. As one mother said,

> *Rachel: I like to know that they are coming, that I'm there, that the job is done, and that they are gone until the next time. [GrpPHN4]

Influences on child abuse and neglect
Time, Knowledge, Communication, Environment, Orientation

Constructions of the importance of this component within the overall service can influence each step of the process and is particularly evident in the step of interacting. PHNs appear to minimise this aspect of their work in order to gain the trust of families with infants. Where there is mutual trust between PHN and client the service can be constructed as one oriented towards "support rather than surveillance" and when this happens the service is understood by key stakeholders to be good quality.

Practical intervention

A small number of components were identified where PHNs undertook a practical intervention during the course of an exchange. For example, the PHN might clean a cord on a new infant, do a dressing on a mother's caesarean section wound, physically latch an infant on to the breast, wind a baby, or change the infant's nappy. Mothers said that when the PHN did these things they learned more about their baby and they constructed the service quality as good. When the PHN did not practically engage with mothers at times they deemed necessary, mothers were dissatisfied. PHNs, however, do not usually provide practical "hands-on" assistance for mothers or infants themselves, although they may intervene on their behalf with others.

Summary: exchange

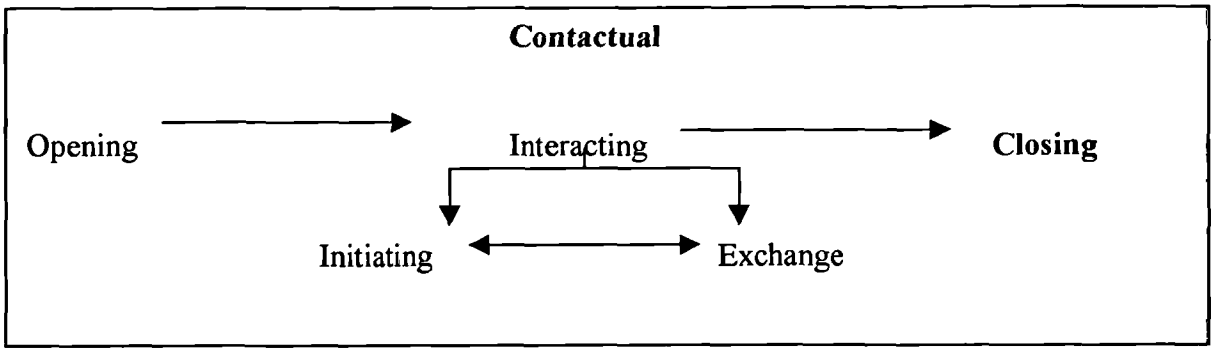
In summary, the exchange constitutes the substantive part of the public health nursing service. Within the findings each of the five concepts of time, knowledge, communication, environment and orientation emerged. In respect of time, the importance of making time for regular contact, not appearing busy in the course of the interaction, and of having contact at the right time was made clear. In this respect the absence of a waiting list was identified as important. The temporal nature of infant, maternal and family need again emerged as an issue and the need for up-to-

date evidence-based knowledge was identified as a key aspect in meeting needs. Knowledge of the "normal" and having personal, local, professional and experiential knowledge of the situation, needs, fears and pressures of parents was central to service quality. Being technically competent was a pre-requisite for good service quality. Clients' own experiential and personal knowledge emerged as a key issue at this step of the process. Having good communication skills, being able to sell the service, being a good listener, being able to raise issues without appearing patronising, using appropriate language, giving feedback and being able to put people at their ease were all identified as important. The environment within which the exchange takes place is important. Getting the "ambience" right and having appropriate tools were identified as core aspects of this step. The specific needs of clients and the availability of other services in the environment, on which both PHN and client could draw, had a direct impact on what took place within the exchange. The final concept, that of orientation, played an exceptional role at this step. Where stakeholders understood the service to be primarily concerned with the identification of problems, building a relationship or the provision of support was not a feature of the exchange. Many instances of changes in practices were identified when the PHN sought to convince clients that the focus of the service was not on child protection issues and also where PHNs covertly sought evidence of child abuse or neglect. Clients identified a desire for the service to be focussed on their well-being as well as on that of their infant. At a policy level, an orientation towards a universal, free at the point of delivery service, was identified as influencing aspects of the exchange. Service quality was understood by key stakeholders to be good when there was sufficient time, open communication, a high level of knowledge, a supportive environment and an orientation towards the needs of individuals within the family.

6.3.3 Closing the contactual phase

The contactual phase ends with a step of closing and the position of this step within the overall contactual phase is presented below in figure 6.19

Figure 6.19 Contactual phase: Closing



As with the opening of the contactual phase, "closing" may simply be a matter of indicating that the contact has come to an end. Either client or PHN may close the contactual phase although it was more commonly done by the PHN. Non-participant observation of client-PHN contact showed that different PHNs did this in different ways using verbal or non-verbal cues. One PHN, for example, almost always closed the contact by saying, "is that everything so?" or "I'll call you again in (name of month)". Another closed the contact by picking up the infant's chart and putting it to one side and disengaging from eye contact with the client. Mothers then responded by gathering their bags or by strapping the baby in the baby carrier. Sometimes, mothers put on the infant's clothes and then got up to leave or they would ask "am I finished now?".

Generally, closing the contact did not emerge in the data as having an influence on service quality unless it was ended abruptly by the PHN. In one case study site, the baby clinic was always busy and when one mother, during the course of a group discussion said "she'd be closing all the doors and you'd be ushered out", others agreed this happened. In another area, mothers compared a relief nurse unfavourably with their usual PHN because of "her attitude of oh I want to weigh your baby and get out". Another mother in the same group followed this up by saying

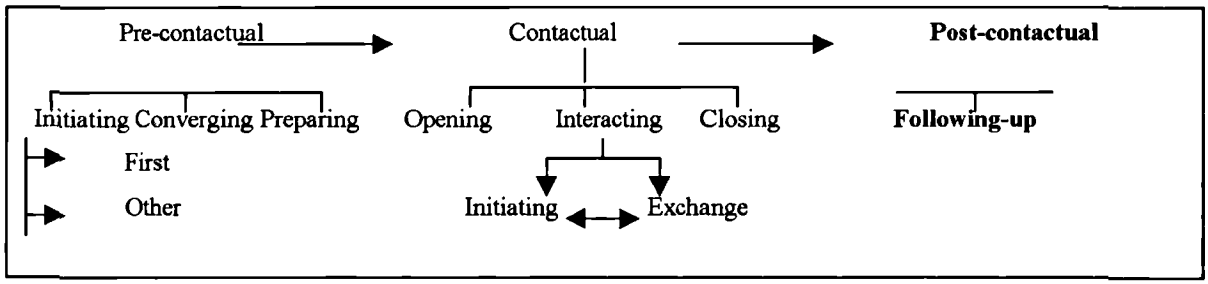
> *Patricia: [name of PHN] doesn't do that to you. You know, she lets you undress the baby. I was practically going out the door and putting on the sock on the baby. [Grpclient1]

Neither PHNs nor their managers identified closure of the contactual phase as an issue of concern in service quality. It was, however, important to clients.

6.4 Post-contactual phase

This section presents the findings from the third and final phase in the temporal trajectory of the public health nursing service to families with infants. This phase, the post-contactual phase, comprises one step, that of following up and this is graphically illustrated in Figure 6.20

Figure 6.20 Post-contactual phase



6.4.1 Following-up

Following-up refers to the step that takes place after completion of the contactual phase. It is so named because in respect of service quality both client and PHN must act on the findings of the previous phase. Both clients and PHNs identified elements of this phase and the step of following-up can be closely related to the rationale for contact as well as to what took place during the contactual phase. Where the client's rationale for contact has been to seek reassurance, the process of the public health nursing service may be complete at the end of the contactual phase. This may also be the case in situations where the rationale for PHN initiation has been based on personal orientation or mandated policy. In other circumstances, some consideration of follow-up is necessary for an understanding of service quality.

Within the contactual phase, many different components of the service were identified. Many of these have a direct follow-on step. Where information or advice was sought and/or received, for example, the client may either follow through on the advice/ information given or not. Where advice and information was utilised and was

successful in meeting the identified need, clients' understanding of quality in the public health nursing service was positive. Where the client did not utilise the information given, or where the information or advice was utilised but was not successful in resolving the need, their understanding of the quality of the service could be negative. There was evidence of both these scenarios. Some mothers said they had followed up on information about other services (such as mother and toddler groups or support groups) and others said the PHN had put them in touch with other mothers. In other situations, clients found the information given had been inaccurate or incomplete. Sometimes, mothers said they received advice that did not work and this made them feel "frustrated" and "fed-up". They also said in those circumstances that the PHN was not credible and this decreased the likelihood of them utilising the service again. The client below told of how she had initiated an exchange with the PHN by saying, "I don't really know if she [the baby] is latching on [to the breast] very well" but the PHN had not "bothered to look and see". In telling this story to the group, the mother said,

> *Ann-Marie: I kind of said to myself then will I contact la lèche now?. Like you will go someplace else like to see if you can get somebody that's willing actually to work like to improve it. [GrpClient2]

In following up on the contactual moment, that client sought out an alternative service in preference to utilising the public health nursing service. Sometimes clients felt the PHN should make a greater effort in following-up on their situations and when they did not, mothers were critical of the service. One mother told of how the PHN had undertaken a guithre test on her infant and during the test, which had taken more than 25 minutes, her infant became very distressed and "was in a terrible state". The mother went on to say,

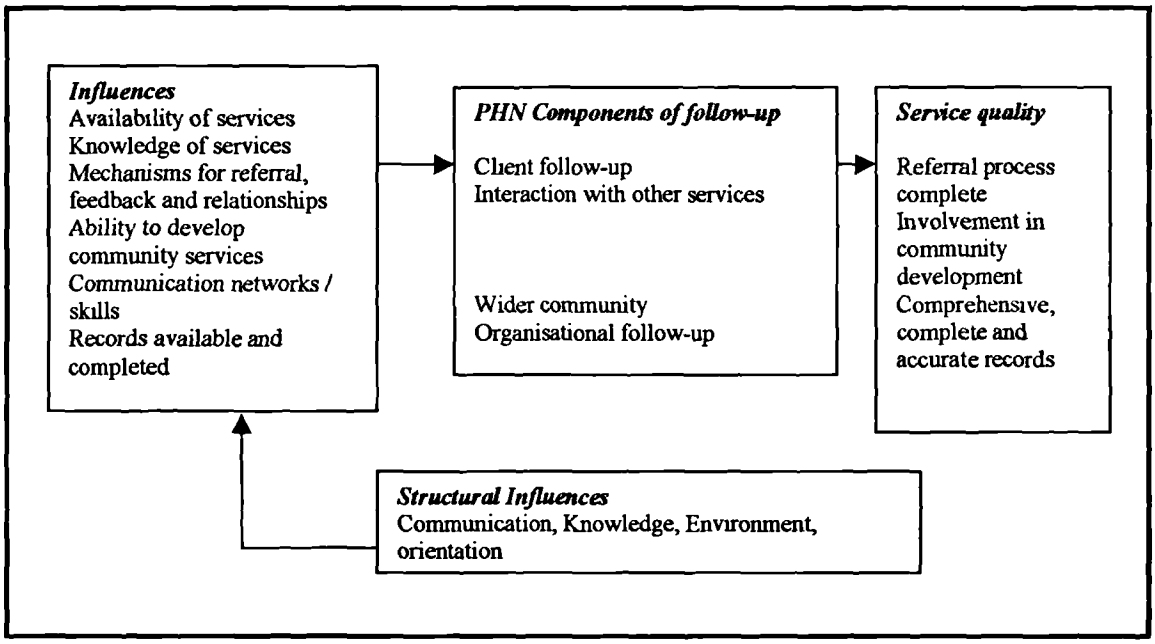
> *Teresa: She didn't call to me for more than two weeks after the baby's ordeal which I felt was really, really rotten. And I had to go down to her to have her weighed and it was a desperate bad morning. [Indivclient3]

In constructing an understanding of service quality, there is always a follow-up step for PHNs. This follow-up may be directly with the client, with other services, with the wider community or with their own professional organisational structure. The components and influences of this are presented in Figure 6.21.

PHN follow-up in relation to the client may involve assessing, identifying and compiling information not available to them at the time of the contactual phase. This may, in some situations, be simply a matter of returning to the health centre and getting written information about a particular topic (for example, pelvic floor exercises, contraception) although generally, it is more complicated than that. The follow-up may involve identifying information about a local service (for example, the times and location of a playgroup, a company that hired breast pumps for breastfeeding mothers). When the PHN has identified the information or other sources of advice and communicated that to the client, service quality was understood to be good.

> *Julie: I had asked her questions about contraceptives and all that and am she had she called just out of the blue you know dropped in a few information leaflets and just went again and called the next day to see if I had read them you know. She was putting me on to somebody else to help me get on with whatever I was doing. .... It was very good, oh yeah, like it just showed me that she was thinking. [Grpclient4]

Figure 6.21 PHN follow-up in the post contactual phase



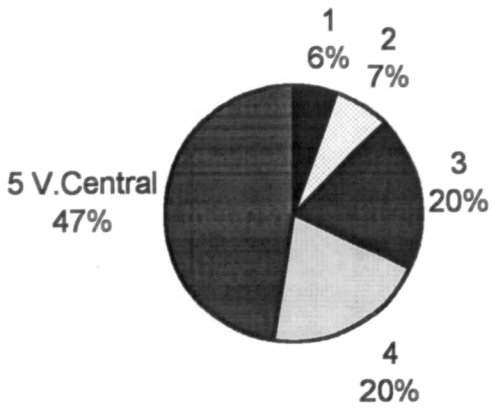
Sometimes, PHNs follow up on a contactual moment by interacting with others including other professionals, other services, voluntary organisations and other statutory bodies. This may involve writing a letter on behalf of a client (for example, to the housing authority) or it may involve referral to other services. Being able to

refer to other sources of assistance is a natural progression from the assessment and identification of need. Referral to other sources of assistance is dependent on the availability of other sources of assistance, on PHNs' knowledge of these, and of the availability of a mechanism for interacting with them.

The extent to which other services are available varies considerably according to the area in which PHNs work. In response to a question on the questionnaire survey where PHNs were asked to "please comment on any other services available in your area for families with infants" many PHNs wrote "none". Other PHNs, however, listed several services including those from statutory bodies (e.g. liaison nurses, community development officers) and voluntary organisations (resources centres, counsellors, alcoholics anonymous). Within the statutory health services, differences also emerged. All infants are routinely seen by an area medical officer (AMO) in only half of all public health nursing areas (51%; n = 313) and for a small number of PHNs, none are seen by AMOs (6.3%; n = 35).
Differences in the availability of other services can influence public health nursing service quality in two ways. First, in the absence of others, PHNs may do work normally undertaken by others. This is particularly the situation with regard to AMOs where, in their absence, two PHNs (rather than one PHN and one AMO) are required for a developmental clinic. This then reduces the time available to both PHNs for doing other work. Second, in the absence of other support services for clients, PHNs may try to provide that support themselves. Where a breast-feeding support group was available, for example, PHNs would refer to that group. Where it was not available, the PHN may need to have several contacts with the family in order to try and meet that need.

On the questionnaire survey, PHNs were asked to indicate on a five-point scale how central "identifying community needs" and "developing community services" are to their practice. The responses to these two questions showed greater variability than any other component of the service Only a little more than half (53.5%; n = 314) indicated that the identification of community needs was very central to their work and less than half (47%) indicated that developing community services was very central (Figure 6.22)

Figure 6.22: Centrality of developing community services



Legend: 1: not central - 5 very central

One further question on the questionnaire survey asked PHNs to indicate whether they had actually been involved in setting up formal or informal services for families with infants in their area and almost half (49.8%; n =297) indicated they had. Areas they were most likely to indicate they had been involved in setting up were breast-feeding support groups and mother and toddler groups although a range of services was identified.

PHNs suggested service quality was good when community needs were identified and community services were developed. The following comment from a PHN illustrates how such services may be developed arising from the contactual phase.

> *Kathleen: But one thing I did when the big estates started, I would, if someone said they were lonely, I would then in my next house say "would you be interested in meeting up with somebody?" and I would give them telephone numbers. Like, I swapped telephone numbers and then in the estates I would be going into maybe twenty houses they would then have a coffee morning among themselves. Informally just coffee and biscuits and then the children would play around and that led then to a mother and toddler group. [IndivPHN4]

In addition to the availability of other services, PHNs involvement in the development of further services is influenced by the "orientation" of the focus of the PHN towards community development and her knowledge of local services and local

people. Where services are available, but are not known to the PHN, she may be impeded in the provision of a good quality service because she cannot act as a link between the client and agency.

Referral

PHNs in the survey questionnaire wrote that service quality was good when they were able to "act as a referral source" for families, of referral to other agencies where "necessary" or "as required", and of having a "central role" in "linking" to various agencies. One PHN noted,

> *Ann: We are a referral source and know where people need to go.... In every walk of life be it, ... they need to go to the corporation or they need to go to the social welfare. They tend to ask us a lot about different kinds of problems to do with the children or not to do with the children. You are making referrals all the time. Through you they can access everybody. [GrpPHN1]

Sometimes, even where clients could self-refer, PHNs may make the first contact on their behalf and this was especially the case for referral to other statutory agencies. PHNs said that when they could directly refer to other services, it helped them to provide a good quality service. Many PHNs, however, could not refer directly to other professionals. Only 39% (n = 239) of PHN respondents to the survey questionnaire said they could refer directly to a hearing specialist and 19% (n = 284) to an eye specialist. Although almost all PHNs (95.2%; n = 568) said they could refer directly to a social worker, in practice, many difficulties were identified. Sometimes PHNs said their referral was not taken seriously and PHNs identified times where clients were not seen despite having made a referral. PHNs said that when they had prepared a client for a social work visit that did not take place their "credibility" and "standing" with the client was damaged.

PHNs said they were able to provide a better service to their clients when they received feedback from various other professionals because it enabled them to maintain follow-up with the client. Both mothers and PHNs told of problems that had arisen because PHNs had not received feedback. These problems included long delays in the infant being seen (where the PHN was unaware of this), appointments sent but not taken up by families, and no knowledge by the PHN of what the outcome of the referral had been. In those circumstances the PHN had no way of judging how

accurate, sensitive or specific her assessment of infant growth and development was, or of judging the progress of the client through the system.

The ways in which a lack of feedback impact on the follow-up of clients is illustrated below. One client told of how one of her children, whose speech development was "slow", was referred by the PHN to have a "better hearing test" (at a specialist unit) to make sure that his hearing was not the cause of his problem. When his hearing was found to be within satisfactory limits, this mother was unsure about what to do and eventually, sought out private speech therapy. She said,

> *Ann-Marie: Yeah I felt that the buck was passed and like now he was into [name of hearing testing centre] and they had to look after him. So, it was kind of ...from their point of view ....I was finished. [GrpClient2]

The PHN in this situation could not refer directly to the specialist unit but had first to refer to an AMO. Feedback therefore, if it were provided, would come directly to the AMO rather than the PHN. Sometimes the referral process can be interrupted because of a lack of continuity in the service and this can mean that nobody is "following up". At other times PHN follow-up can decrease the waiting times for children to be seen.

> * Kathleen: It's up to four months, in my area, of a waiting list. Unless, ...I make a phone call and say "it's really urgent can you slip the child in, can you fit the child in somewhere?" and depending on what secretary you meet then they may do it [IndivPHN4].

The amount of time feedback is received by PHNs from other professionals varies considerably. A question on the survey questionnaire asked PHNs to indicate how often they received feedback from various other professionals and the findings are presented below in Table 6.2. These findings suggest that levels of feedback can be very low, particularly from social workers, eye specialists and hearing specialists.

Table 6.2: Percentage of professionals who provide feedback more than 70% of the time to PHNs.

	% feedback more than 70% of the time
Community welfare officer	61% (n = 361)
Area medical officer	78% (n = 458)
General Practitioner	32% (n = 203)
Hearing specialist	56.5% (n = 260)
Speech therapist	84% (n = 495)
Eye specialist	29% (n = 127)
Social worker	29.7% (n = 169)

PHNs said that when they received feedback from others, they had better relationships with them. These, in turn, helped them provide a better service because they often had informal contact with them and could use that contact to draw on specialist knowledge.

In some areas many different professionals, including community welfare officers, area medical officers, environmental health officers, speech therapists, social workers and general practitioners all worked from the same premises. In other areas, PHNs were the only people working in the health centre although sometimes other professionals could hold clinics there. Where PHNs and other professionals had opportunities to meet informally they said it helped them to form relationships. Although working from the same health centre was helpful in this way it did not always facilitate good working relationships. Sometimes, resource issues around parking, telephone and office space created inter-disciplinary conflict that could lead to poor relationships. When PHNs received feedback from other services they said it facilitated good relationships. Feedback also enabled PHNs to identify situations where referrals were inappropriate. Crucially, however, it enabled them to follow-up at local level with families and advocate on their behalf where there were long waiting lists.

PHN follow-up within the organisation

The final area of follow-up for PHNs takes place within their own organisation. Individual client and other organisational records must be completed, necessary resources identified and requisitioned. Follow up for these may involve writing letters or making contact with other departments within the health boards. Following a contact between client and PHN, the PHN may write to a PHN manager. Letters sent were generally limited to those where a problem was identified or where assistance was required.

PHNs and managers were critical of the failure of PHN records to capture the nature of the public health nursing service, particularly with regard to their work with mothers. They said that it was very important to be able to record and quantify public health nursing work because others, not involved in the service had no other way of knowing what was being done. The following public health nursing manager illustrates this.

> *Alice: Our records are not actually showing or quantifying what the nurse is actually doing and so they [non-nursing managers] don't know what is going on and then the nurse is undervalued. [GrpMan1]

Findings from non-participant observation revealed that although some PHNs may record findings from the contactual phase during the actual contact, many do so during the post-contactual time. Contact between families with infants generally takes place with the same PHN and it is usual for PHNs only to see those living in their own area. Occasionally there may be exceptions to this (for example, PHN not available, infant minded in different area). Where a family with an infant transfers to a different community care area, the child health record ("green card") is normally sent to the PHN in the new area through the public health nursing management service. This does provide a tracing system for child health records but in some areas, at least, it can be exceptionally slow. The chain involves a PHN, an assistant director of public health nursing, a clerical officer (to record the details), another assistant director in the new area, another clerical officer (to record details in new area) and the new PHN. The record can be mislaid at any one of these points and when that happens, PHNs and PHN managers said service quality was poor.

In addition to the individual child health record, each PHN completes a daily diary and a monthly return sheet that provides a count of the total number of clients in different categories seen each month. These "monthly returns" are then aggregated by the health board each year to provide an account of PHN "activity". In April 2001, a "quality indicator sheet" was introduced for PHNs nationally in terms of their child health work. This is the first one introduced on a national basis in public health nursing, although in some areas information about breast-feeding continuation rates have been collated over time. The quality indicator sheet asks three questions and they are

- "How many new infants did you have [in your area] in the previous month?",
- "How many did you visit within 24 hours after discharge from hospital?" and
- "If infants were not seen within 24 hours, please indicate why".

Although this is presented as an indicator of the performance of the public health nursing service, it may be better understood as one that refers to the performance of the birth notification system.

To summarise, the post-contactual phase comprises one step, that of following-up and this step is constructed by key stakeholders as an important one in understanding service quality. Time, knowledge, communication, environment and orientation emerged again as important concepts at this step and concrete examples have been provided throughout the text. Both client and PHN may have a follow-up step, and the service is understood to be good quality when knowledge acquired is utilised by the client and the PHN (e.g. in identifying needs and developing community services in the broader environment). When good communication between the public health nursing and other services takes place, the PHN can advocate on behalf of the client. Where the PHN follows up on issues that arise during the contactual phase, key stakeholders understand service quality to be good. A lack of time was identified as inhibiting community development activities although differences in PHN focus were also a key element in undertaking this type of work.

6.5 Summary

This chapter has focused on explicating and providing a thick description of the public health nursing service process to families with infants. Seven steps within a three-phase temporal trajectory were identified and each one of these steps was identified as important in constructing an understanding of service quality. These steps were identified as initiation, converging, preparing (pre-contactual phase), opening, interacting, closing (contactual phase), and following-up (post-contactual phase). There was agreement between key stakeholders that these steps accounted for the activities undertaken by both PHNs and clients in the process of the public health nursing service to families with infants. These seven steps provide a framework within which the process of the public health nursing service to families with infants can be made explicit. Each one of these steps is taken into consideration by managers, PHNs and clients in constructing an understanding of service quality.

Throughout each of the seven steps, five key concepts emerged and these were time, knowledge, communication, environment and orientation. Each concept was made concrete throughout the individual steps and many instances of their use in informing constructions of service quality were identified. At the end of each step, a summary of examples has been provided and these illustrate the complexity of each one of the concepts as well as their contribution to a construction of service quality. It could be argued that different concepts emerged as more crucial than others for different steps within the process. At the point of initiation, for example, having time to undertake contacts considered necessary could be understood as the most critical element. Each of the other four concepts, however, is also necessary. Without communication from the hospital that the infant has been born, knowledge (professional and local) of the increased needs of some families over others, a policy and service orientation towards a universal service, and an environment appropriate for the contact, the step of initiation may not take place or, if it does, may not be of high quality. Where key stakeholders construct any one of these elements as deficient, this step will be understood as poor quality. Consequently, a holistic understanding of service quality must take account of each of the five concepts at each of the seven steps. While acknowledging that for some steps, in some situations, with some stakeholders, each

concept does not emerge with equal importance, consideration of all five in constructing an understanding of service quality is essential.

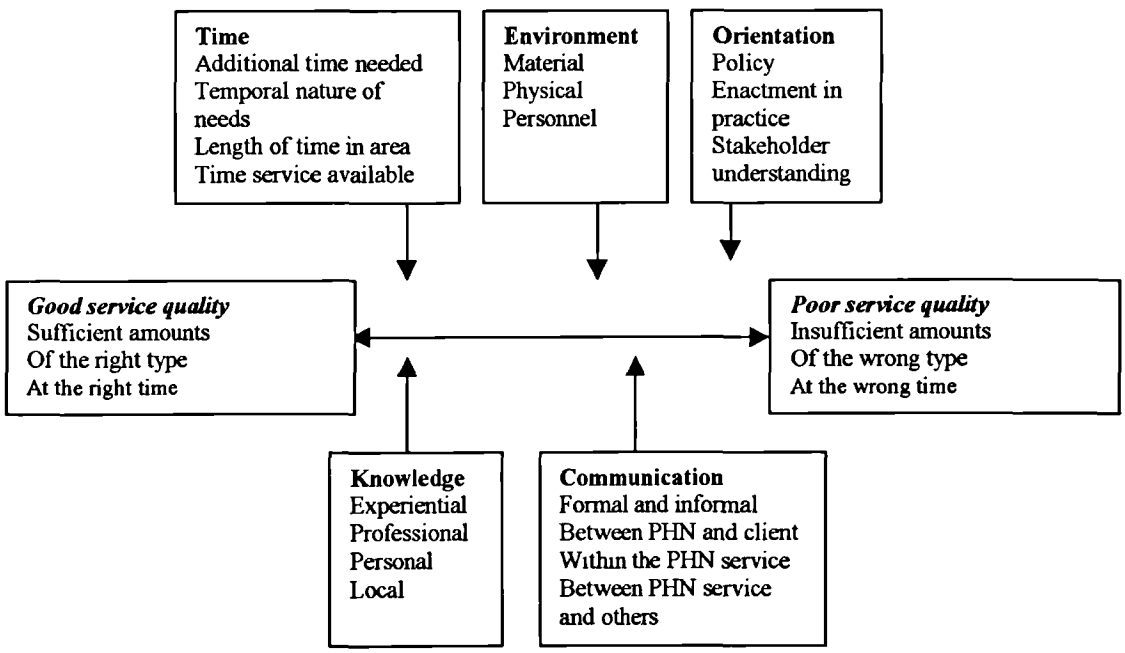
A key issue arising in the literature was the extent to which the organisational context influences the enactment of quality in the public health nursing service to families with infants. Throughout the findings relating to each of the individual steps, it was clear that the organisational context comprised three key aspects. These were policy, people and place. A number of different policies operate in respect of the public health nursing service. These relate in the first instance to the provision of a universal on-going service for families with infants less than one year. Other policies relate to the timing of the service, provision of out-of-hours service, mandated times of contact, educational preparation and on-going access to education for PHNs, lateral and vertical communication channels including records held by PHNs, and performance indicators. The availability of personnel to the service can also be understood in terms of organisational context. The workload of any particular public health nursing service is influenced by the availability of other personnel within the service (for example, RGNs) and between the public health nursing and other services (for example, social workers, AMOs, La Lèche). The demographic composition of the area will dictate the extent to which the PHN is involved in child health work, and thus the client is also part of the organisational context. The workload is also influenced by the geographic attachment of PHNs to particular populations and some populations are likely to have families with higher levels of need than others. The provision of the public health nursing service in a health centre or home setting is a function of the organisational context and is a key factor differentiating the public health nursing service from acute or chronic care services. The following chapter draws on each of the four case study sites to illustrate organisational influences, and is guided by the five key concepts of time, knowledge, communication, environment and orientation as they emerged in the data.

Chapter 7: An exposition of links

7.1 Introduction

The model of service quality presented at the beginning of Chapter 6 identified three parts (organisational context, process and consequences) with five key concepts situated between each part. The previous chapter focussed on an explication of the three-phase process of the public health nursing service to families with infants. Within that process, five concepts of time, knowledge, communication, environment and orientation emerged. This chapter focuses on how, in addition to being embedded within the process and, in addition to influencing constructions of service quality, these five concepts can emerge from the organisational context within which the service is provided. This is done using between-case comparison of findings from the four CSSs. Data from the national questionnaire survey are used to situate CSS findings within the collective case of public health nursing in the Republic of Ireland so that the reader can make a judgement regarding within-case transferability. Each concept has a number of sub-concepts and an overview of these is presented in Figure 7.1.

Figure 7.1 Key concepts



Each concept is now considered individually and the relevant section of the diagram presented in Figure 7.1 is repeated throughout the chapter so that a graphic representation of each concept is readily available to the reader. The first concept considered below is time and because of the proximity of this section to Figure 7.1 an individual representation of that concept is not presented.

7.2 Time

> Margaret: It was a bit rushed at that time and you know, in and out quickly, and clothes on and off very quickly, like you know and back out again so that well, I haven't really used it much since to be honest with you. [GrpClient2]

In CSS 1, Catherine, the PHN, said she had enough time to provide a good service. The total population size, served by the public health nursing service, was around 3,500 people (CSO 1996). Thirty-nine new infants were born in 2000. This compares with CSS 2, where more than five times as many infants (n = 214) were born in the previous year. The implications of this for PHN mandatory initiation of the service are that in CSS 1, fewer than 200 (195 contacts) contacts would be initiated compared with CSS 2, where more than 1000 (1,070) initiated contacts would be necessary to meet the mandated contacts.

PHNs and PHN managers in the questionnaire surveys and interviews identified some families as needing additional time and this was especially the case for first-time parents, breast-feeding mothers, unsupported and isolated families, and families where there was a high level of deprivation. The population in CSS 3 was considered to be one of high material deprivation (SAHRU 1997) and eight "very vulnerable" families took up a lot of the PHN's time in this area. Further, one part of the town had had a lot of newly developed housing estates and many new families moved there because of high house prices elsewhere. Over the course of a three-year period (1998-2001) the number of infants born each year had increased from forty-three to ninety eight. On the survey questionnaire, PHNs wrote that it was "stressful", "difficult" and "demoralising" for them when they had to prioritise constantly certain aspects of their work at the expense of others. This was particularly true for Martina, the PHN, who worked in the CSS 3.

The increased work and consequent lack of time arising from a high population has the potential to be balanced by the availability of other personnel. Some differences between CSSs in the availability of personnel were seen (Table 7.1). The public health nursing service in CSS 1 was allocated a school nurse, a hospice care nurse and a registered general nurse (RGN). The RGN was allocated to the service for four hours each week and during that time the PHN facilitated a baby clinic.

Table 7.1 Findings for population size, composition and other nursing services

	Case study sites				*National Findings*
	CSS 1 PHN: Catherine	**CSS 2 PHN: Brigid**	**CSS 3 PHN: Martina**	**CSS 4 PHN: Kathleen**	**Mean Average findings from PHN questionnaire survey**
Type of area	Rural town, rural	City	Town with some rural	Rural with a small amount of town	**City 28%; Town 8.7%; Rural 27.2%; Mixed urban / rural 35.7%**
Total population (CSO 1996)	3,514	12,000	2,800	5,216	**Mean average:** 3,997 **Range** 500 - 16,500 **SD** 3,194 **95% CI** 3,300-4694) (n = 533; Response rate 87%)
Number of infants	39 (1.1% total population)	214 (1.7% total population)	98 (3.5% total population)	45 (0.8% total population)	**Mean average:** 63.5 **Range:**1-490 **SD:**44.07 **95% CI:** 59.4-67.6 (n = 557; Response rate 91%)
% total population > 65 years	16% (n = 562)	4.9 % (n = 568)	10% (n = 284)	15% (n = 625)	14% population > 65 years
Deprivation	Not deprived SAHRU 2	Not deprived SAHRU 2	Large part deprived SAHRU 4	Some part deprived SAHRU 3	*SAHRU statistics Level 1 (least deprived) 19.5% Level 2:40.6% Level 3: 22.7% Level 4: 11.3% Level 5 (most deprived): 5.9%
Other nurses available	School nurse CPN Hospice care nurse RGN (half day weekly)	School nurse Home help organiser Palliative care nurse	School nurse, palliative care nurse	School nurse, CPN Palliative care nurse	RGN: 44% CPN: 83.7% Hospice Care Nurse:85% School Nurse: 53% Home help organiser: 59.5% Physically handicapped: 50% Mentally handicapped: 40.5%

SAHRU Small Area Health Research Unit deprivation index. This index has five levels where 1 is the least deprived and 5 is the most deprived.,

**RGN Registered General Nurse; CPN- Community psychiatric Nurse

In CSS 2, the public health nursing service was allocated a home help organiser, hospice care nurse and school nurse. Only fifteen people in that public health nursing service area, however, had home helps because financial eligibility for this service takes precedence over need and a home help organiser, therefore, did not contribute greatly to a reduction in workload for the PHN, or greatly increase the time available to her. National findings from the PHN questionnaire survey are presented in Table 7.1 along with data from the four CSSs.

7.2.1 Timely response to client need

The organisational context influenced the capacity of the PHN to be available to clients, and therefore responsive to their needs, in two ways. First, in being able to provide the necessary contact at the right time. Building up a relationship required early and regular contact over time. Where time was limited, sometimes only one or two contacts took place over a three-month period and this was considered insufficient, for some, to facilitate the development of a relationship. Sometimes, a lack of time meant that, rather than having contact with a family when the infant was three months old, this contact might not take place until the infant was more than four and sometimes five months old. Consequently, problems that had the potential to be pre-empted or rectified at an earlier stage were not identified. It also meant the infant was not seen again until nine months old because "the mother would be wondering what you were doing there if you turned up again for the 6 months".

The second way in which the capacity of the PHN to be responsive to clients is influenced by the organisational structure related to times when the service was available. This is of particular importance to the pre-contactual step "converging" where, in order for contact to take place, the PHN and client must be available to each other at a mutually suitable time and place. Structural influences relating to this are identified below where CSS findings and those from the PHN survey are presented (Table 7.2).

Table 7.2 PHN availability

					National Findings
	CSS 1	**CSS 2**	**CSS 3**	**CSS 4**	**Findings from PHN Survey**
Out-of-hours service	Essential services (Week-end)	Essential services (Week-end)	Voluntary / Essential services (Week-end)	Essential services (Week-end)	16% out of hours (usually week-end and not for infants); 5% voluntary (give home number) n = 588; response rate: 96.6%
Office times	2-3pm Monday - Friday	10-11am Monday - Friday but usually comes late, leaves late	9-10am Monday-Friday	9-10am	**% time spent on home visiting weekly** < 2 hrs: 6.6% 2-4 hrs: 16.1% 5-8 hrs: 25.4 % 9-12 hrs: 22.8% 13-16 hrs: 12.4% >16 hrs: 16.8% n = 578; Response rate: 94.9%
Non-appointment clinic	Yes	Yes	Yes	No	**% time spent on clinics each week** None: 11.3% < 2 hrs: 25.9% 2-4 hrs: 38.4% 5-8 hrs: 19.8 % 9-12 hrs: 3.4% 13 hrs: 1.2% n = 586; Response rate: 96.2%
Developmental clinic	Yes - on time	Yes- 3-4 months late	Yes with another PHN	Yes, but staffed by school nurse and AMO	

Table 7.2 above identifies the availability of the public health nursing service in terms of times and setting for practice. The times during which the public health nursing service was available was examined in the questionnaire survey of PHNs. The findings suggest that in general, the public health nursing service is available only between 9am and 5pm, Monday to Friday although 16% (n = 95) of 598 respondents said they provided an out-of-hours service. Many who indicated that an out-of-hours service was provided said this related to the planned essential service each weekend. Although this is a service primarily concerned with clinical nursing care, in one health board area, respondents noted that "guithre testing" for metabolic screening of the new-born took place over the weekend. A small number of PHNs indicated they worked flexi-time and were available to families from 8.30am to 6.30pm. Almost 5% (n = 32) of PHNs said they gave their home telephone number to some mothers and were, therefore, available to parents on a voluntary basis.

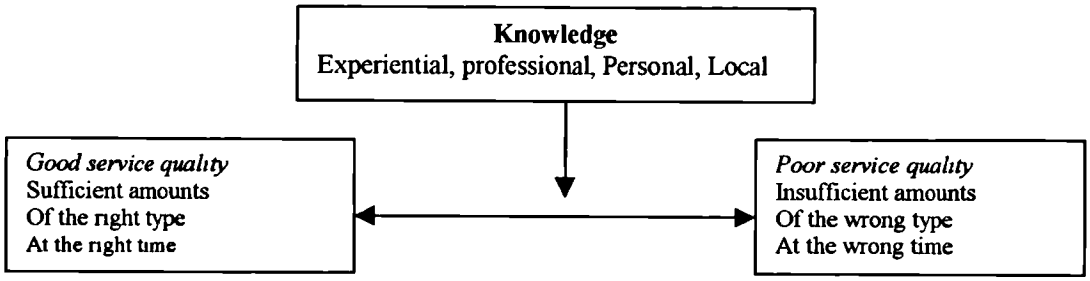
In each of the CSSs, a week-end service was provided but, in each situation this was restricted to clinical nursing care calls. In CSS 3, Martina the PHN gave families her home telephone number and she said they sometimes rang at weekends and at night. In CSS 1, the PHN was in her office everyday from 2pm to 3pm. On one afternoon each week, a non-appointment baby clinic was held between 1.30pm and 4pm and Catherine, the PHN, said this was a convenient time for mothers because they could drop in when they collected their children from the primary school nearby. While she was doing this clinic, an RGN provided clinical nursing care for patients who needed it. Usually between five and seven infants came to each clinic. A developmental clinic, held jointly between a PHN and AMO, was available for nine-month-old infants although a waiting list meant that sometimes infants were older when they were seen.

In CSS 2, Brigid the PHN told people she would be in her office from 10am to 11am each morning. Sometimes, she had calls to do on her way to the office and she often came as late as 10.45am. At other times, if she were on leave there would not be anybody in the office between 10am and 11am. Because the phone was so busy and so many people came to the centre looking for the public health nursing service, the PHN sometimes did not leave before 1pm. A non-appointment clinic was also held but on two occasions while I was there nobody came. A developmental clinic was held with an AMO but infants were usually between 12 and 14 months old when they were seen.

In summary, time emerged as a key concept of importance in constructing an understanding of service quality. These findings show that the amount of time available to any given service can differ according to the organisational structure within which the service is provided. Differences can be accounted for in two ways one relating to the profile of the service and the other relating to staffing differences. Circumstances where additional time was necessary were identified and the timeliness of the service in terms of availability and responsiveness also differed.

7.3 Knowledge

Figure 7.2 : Knowledge



The second area of influence emerging in this study was knowledge and, as illustrated above, this was also was understood in different ways.

Influence of the organisational context on knowledge

> *Joan: She was really interested in her job and it was just so obvious .... and she was just full of knowledge and she just wanted to impart all that knowledge and it was just lovely. She was great. [Grpclient1]

Key stakeholders identified formal and informal sources of knowledge. The main focus for examination in respect of knowledge relates to the PHN, although it is noted here that other staff involved in the provision of any given public health nursing service also make a "knowledge contribution". For PHNs, formal sources of knowledge included mandatory (registration as a registered general nurse, midwife and public health nurse) and non-mandatory (Masters and Bachelors degrees, diploma, certificate, study days etc.) preparation for the role.

Non-formal sources included personal (including being a mother, having breast fed, having had post-natal depression) and professional (public health nursing experiences, prior nursing experience, for example, neonatal intensive care, paediatric or psychiatric environments) experience (Table 7.3).

Table 7.3 Organisational support for "knowledge"

		Case study sites				*National Findings*
		CSS 1	**CSS 2**	**CSS 3**	**CSS 4**	**Findings from PHN questionnaire survey**
Formal sources	RGN RM RPHN	RGN RM RPHN	RGN RM RPHN	RGN RM RPHN	RGN RM RPHN	All respondents RGN + RM 96% respondents PHNs *4% respondents HVs
	Have additional registrations	RSCN	RSCN	None	None	RSCN 10.2%; n = 62 RPN. 9.3%; n = 57 RNMH: 1.3%; n = 8 RNT: 1.0%; n = 6
	Certificates	Yes	Yes	Yes	No	46% (n = 249) had additional certificate
	Diploma	No	No	No	No	30%(n = 165) had additional certificate
	Degree	No	No	No	No	7.5%, n = 41
	Length of time since PHN qualification	13 years	21 years	31 years	29 years	Mean average: 13.18yrs Range: 0.25 yrs - 35 yrs 95% CI: 12.46 - 13.90 n = 579; Response rate: 95.1%
	**Relevant education in last year	2 days	1/2 day	1 day	None	None: 26.8% n = 152 full day 52.3% n = 297 n = 561; Response rate: 92.1%
Professional experiential sources	Pre-public health nursing	Accident and emergency nursing Other PHN areas	Paediatric nursing Other PHN areas	Infectious disease nursing ("TB nurse")	Midwifery District nursing, UK	
	Length of time in current area	7 years	Four months	22 years	21 years	< 1 year = 13.5% n =81 1-5 yrs = 36% n = 215 6-10 yrs = 11.6% n = 71 > 10 yrs = 38.6% n = 231
	Permanent	Yes	No	Yes	Yes	Yes 90.2% n = 553

* HVs. Health Visitors; **Relevant education in last year specific to families with infants

CSS: Organisational influences on knowledge

PHNs working in the public health nursing services in each of the CSSs were all qualified nurses, midwives and PHNs and all had worked in public health nursing for many years (Table 7.3). Three of the four PHNs held additional certification and PHNs in two CSSs held a paediatric nurse registration. The PHN working in CSS 1 had undertaken family crisis management, personal development and promotion of continence courses and had attended four study days in the previous year, two that were specifically about her work with families with infants. The RGN who worked in that service for four hours each week was a qualified midwife and also worked in a

service for elderly people locally. As she also lived in the area she had a great deal of local knowledge. Time and knowledge were closely linked in respect of organisational context. Not having time to go to study days was identified by the PHN in CSS 2 as being a problem in trying to keep up to date in her knowledge base. The PHN in CSS 4 had not attended any study day in the previous year.

The length of time a PHN spent working with any particular service was a key influence on her knowledge of local situations. This was also the situation for clients where the length of time clients had lived in a particular locality influenced their awareness of the PHN and other services as well as their level of local support. PHNs said that when they had worked in an area for a long time, they had in-depth knowledge of families and of other services. A family's need for the public health nursing service was also influenced by the length of time spent in an area. Service providers and clients who had local knowledge could sometimes circumvent problems (for example, in respect of the birth notification at initiation, or in knowing how and where to contact the PHN / client at the step of converging).

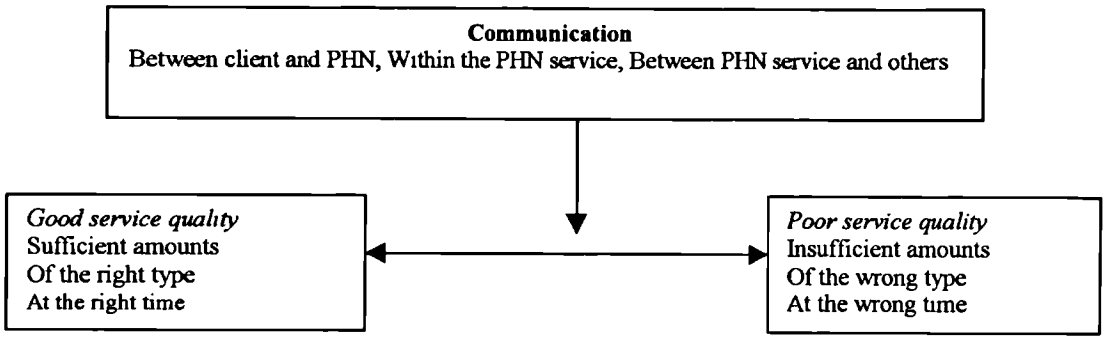
"Local knowledge" was a problem for the PHN in CSS 2 because she had only been allocated to that service for a period of four months. She noted that the type of population meant that many mothers worked outside the home and getting to know families was difficult and the step of converging was particularly problematic. The PHNs in CSS 3 and 4 had worked in that service for more than twenty years and were now visiting the third generation of some families.

To summarise, knowledge emerged as a key concept in this study and influenced constructions of service quality in the pre-contactual, contactual and post-contactual stages of the process. Sources of knowledge identified included, mandatory and non-mandatory professional education, professional and non-professional experiential knowledge and local knowledge. The structure within which each PHN works can directly influence the knowledge base and up-to-date knowledge is related to the amount of relevant education undertaken in the previous year. Local knowledge was directly related to the length of time and the permanency of a PHN in an area.

Clients' knowledge of local services as well as the development of support networks was identified as important.

7.4 Communication

Figure 7.3: Communication



PHNs, managers and clients all identified good communication between PHN and client as an important contributor to constructions of service quality at each step of the process. Three aspects were identified and these were *what* was communicated, *how* it was communicated and the *mechanisms through which* communication took place. The following quote illustrates these aspects of communication

> *Marian: She was just wonderful because I was feeling so rotten and breastfeeding was just giving me such hassle. And she was just like you know nearly fit to hug you and say like you're alright you'll be grand. You know you're doing fine and then, you would be skipping out of the place and trying for another week breastfeeding. [grpclient 2]

In CSS 1, clients said it was easy to talk to the PHN, they could ask her anything and she was interested in them as well as their infant. They said the PHN had a way of saying things that made you feel good. The PHN allocated to that service said it was important to be respectful of mothers and to learn from them by being a good listener. In CSS 2, mothers said that when the PHN was "writing" all the time she missed out on listening, and one mother, living in CSS 3, said the PHN was always telling her what to do. Other mothers gave examples of poor communication including being "ordered to do things" and of having their worries dismissed They said when that happened it undermined their confidence. In CSS 4, mothers said the PHN had a nice manner.

Both verbal and written forms of communication between PHNs provide a mechanism for ensuring continuity of client care within the public health nursing service. In the post- contactual phase, the records of an infant moving elsewhere are transferred through the organisation from one PHN to another. When this form of communication worked well, it was understood to facilitate good service quality. Other formal and informal communication takes place between PHNs although this can be limited to formal monthly meetings between PHNs (as a group) and PHN managers. In some areas there was a lot of informal communication, particularly where PHNs held adjoining areas, worked in the same health centre or worked in or near the main administration building. Sometimes very good personal, out-of-work relationships existed between PHNs, and between PHNs and PHN managers and this was often used to compensate for an absence of formal communication channels. In three of the four CSSs formal meetings were held about eight times each year where a speaker was invited and areas of interest to PHNs discussed. PHNs, RGNs and PHN managers all attended these. It was clear from the data that many different organisational contexts could apply. The public health nursing service under examination may be the only one (CSS 1), or one of many (CSS 2, CSS 3, CSS 4) delivered from a particular health centre. Within the health centre, office space may be shared between public health nursing services (CSS 3), or a service may have its own office space (CSS 4). This influences the amount of informal communication that takes place between different PHNs. In CSS 2, the PHN had not attended any formal meeting since her arrival because none had been organised. Further, although other PHNs worked from the same health centre they rarely saw each other.

Communication between the PHN and others forms a crucial part in understandings of public health nursing service quality. At the pre-contactual phase, the absence of a mechanism for referring clients in the antenatal period means that first initiation of contact almost always takes place as a direct consequence of the birth notification scheme. Early, accurate and complete information about births was identified as an important influence on constructions of service quality. Findings from the PHN survey questionnaire found substantial differences in the length of time from the birth of the infant to notification to PHNs and these are presented below in Table 7.4.

In three of the CSSs, new-born infants were usually referred to the PHN service between five and six days after the birth. In CSS 2 when an infant had been in the special care unit of the hospital, a liaison nurse system was in place. This meant that initially the hospital liaison nurse followed up certain vulnerable families (including infants with congenital abnormalities, unsupported mothers, infants that had been admitted to the special care baby unit, infants of known drug abusers). In each of the other CSSs, these infants were referred to the PHN on discharge. This influences the extent to which a PHN needs to engage with families with infants.

In CSS 1 antenatal classes are provided by the PHN and consequently she had some knowledge of families prior to the birth of an infant. She said she "kept an eye out" so that she would know when a baby was born. In CSS 3, the PHN noted that there were so many new estates that she hardly knew where to go to when she got the birth notification. Infants born into CSS 2 were often nine or ten days old when the service was notified of the birth. Although this may be related to the presence of a liaison nurse only a small number of these infants would have required follow-up by this service. The problem of late notifications of birth appeared to be related to the system itself.

Table 7.4 Referral to the service

	Case study sites				*National Findings from PHN questionnaire*
	CSS 1	**CSS 2**	**CSS 3**	**CSS 4**	**Referral to the public health nursing service**
No days to get birth notification	Knows some ante-natally 5-6 days	7-10 days	5-6 days	5-6 days	1-2 days: 40 5% (n = 232) 3-4 days 27 5% (n = 167) 5-6 days: 18.8% (n = 114) 7-10 days: 11% (n = 67) > 10 days: 2.1% (n = 13)
Liaison nurse	No	Yes	No	No	

The extent to which the PHN can communicate directly with other services emerged as an important area for consideration of service quality and this was particularly the case for PHN referral to other professionals. PHNs said that where they could not refer directly to other professionals the follow-up stage of their service was impeded. The survey data identified a lack of direct referral or feedback systems between the

PHN and other professional services. Many differences were seen in terms of direct referral and feedback between PHNs and other professionals.

There was no mechanism for directly referring families from the public health nursing service to hearing or eye specialists in any of the four CSSs although there was a direct referral process for all other professionals identified. Levels of feedback varied according to which service was under scrutiny. In CSS 1, for example, feedback was always received from the GP but never from the hearing or eye specialists. An absence of feedback from hearing and eye specialists was also identified in other CSSs. Speech therapists were noted to be particularly helpful regarding feedback. In CSS 3 several difficulties between the PHN and social work services in respect of communication were noted. Findings relating to these are presented below in Table 7.5 and it can be seen that much of the data from the CSSs supports the data from the national survey.

Table 7.5 Feedback from various other professionals

	Case study sites				***National Findings from PHN questionnaire***
	CSS 1	**CSS 2**	**CSS 3**	**CSS 4**	**% who received feedback more than 70% of the time**
CWO[1]	>70% of the time	>70% of the time	>70% of the time	35-69% of the time	61% (n = 361)
AMO[2]	Never	35-69% of the time	Always	70% of the time	78% (n = 458)
Speech therapist	Always	Always	Always	Always	84% (n = 495)
Eye specialist	Never	Never	Never	Never	29% (n = 127)
Hearing Specialist	Never	5-34% of the time	5-34% of the time	35-69% of the time	56.5% (n = 260)
General practitioner	Always	5-34% of the time	Always	35-69% of the time	32% (n = 203)
Social worker	5-34% of the time	*Not applicable	5-34% of the time	5-34% of the time	29.7% (n = 169)

[1]CWO. Community welfare officer; [2]AMO: Area Medical Officer

* Not Applicable No record of family having been referred to this discipline

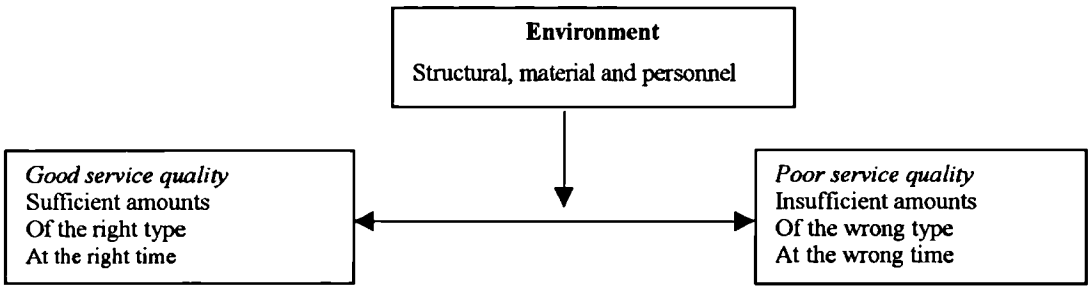
To summarise, the extent to which client-PHN communication is supported by the organisational context within which people work is closely linked with knowledge, time and the availability of material resources within the environment. Good communication between PHNs and clients and between PHNs and others can be supported at an organisational level by facilitating the development of good

communication skills, by the provision of appropriate referral and feedback mechanisms and by good communication networks within the material environment.

7.5 Environment

Three aspects of the environment were identified as being relevant and these were the structural, material, and physical environment. These aspects are presented below in figure 7.4.

Figure 7.4 Environment



*Teresa: That filthy dirty place and I had to feed my baby there. I couldn't wait to get out. I said to myself "what am I doing here? I should be with a paediatrician, in a place where there is a bit of sterility, a bit of cleanliness" [Indivclient3]

The environment within which the service is enacted was identified as an influence on understandings of service quality. Being able to choose between home or clinic contact was a key issue. Sometimes, the home was preferable, especially for building a relationship and needs assessment and identification. At other times, the clinic setting was preferable, particularly when technical components of the service were important. Almost ninety percent of PHNs (88%; n = 470) said contact with families when infants were nine months old took place in the health centre, suggesting that the health centre environment is preferable to the home environment at that age.

Table 7.6 presents an overview of the level of PHN "happiness" with the clinic base. Although some PHNs in the survey questionnaire were very positive about the clinic base from which they worked, there was considerable evidence that health centres were often unsatisfactory. Terminology such as "just terrible", "appalling",

"Dickensian", "inadequate" "awful", "prison-like" and a "disgrace" emerged frequently in the comments about several different health centres. One PHN wrote that the clinic was due for demolition for at least five years but it continued to be used. PHNs said and wrote that the absence of an attractive health centre had an impact on the uptake of their service because parents did not want to come to health centres that were unkempt, dirty and unsuitable for use. Issues relating to safety aspects including lack of heating, "leaking and damp" health centres, poor toilet facilities and lack of hot water were identified in this regard. General lack of user-friendliness included an absence of toys, not having breast-feeding or nappy changing facilities, and being unattractive and "forbidding" for clients. Issues relating to access to the building meant that sometimes it was most unsuitable for use. Examples given by PHNs included being situated away from the population centre, difficulties arising from the building itself because of steps, stairs or narrow corridors that were not wide enough for baby buggies, and difficulties in parking safely.

Table 7.6 Elements of the structural environment of the clinic base

	Case study sites				*National Findings from PHN questionnaire*
	CSS 1	**CSS 2**	**CSS 3**	**CSS 4**	**% "Very unhappy" with particular aspect**
Comfort	1	5	5	5	20.7% (n = 122) Response rate 96.6%)
Cleanliness	1	5	5	4	16.9% (n = 101) Response rate 98%
Decoration	1	5	4	5	26.9% (n = 164) Response rate 98%
Room for hearing	1	5	5	5	49.3% (n = 294) Response rate 98%
Room for weighing	1	5	3	3	19.9% (n = 118) Response rate 97.5%
Room for giving advice	1	5	4	3	21.7% (n = 130) Response rate 98.2%
Access	Very easy	Difficult	Easy	Easy	Very easy 16.8%; (n = 102) Easy 55.9%; (n = 339) Difficult 21.7% (n = 133) Very difficult 5.2% (n = 32) N = 592; Response rate: 97.2%

* based on D-T scale where 1 = very happy and 5= very unhappy

A lack of space for personnel from various services meant that in some situations a single shared office was also used as a clinical nursing and consultation room. This lack of space was identified as having four important and detrimental consequences. First, there was a risk of cross infection to infants where clinical nursing care was

being provided in the same room. Second, a lack of privacy afforded to clients when consulting with the PHN had a consequent influence on the initiation of interactions. Third, a lack of space led to an inability to provide clinics, health education or family support groups. Finally, carrying out certain components of the service in a technically competent way (for example, hearing and vision testing) was compromised by rooms that were inadequate in length.

Other aspects of the physical environment relate to the type of area in which the PHN works. In the survey, a small number of PHNs made reference to problems with their personal security in inner-city areas or in isolated rural areas. PHN respondents indicated that sometimes clients did not utilise the health centre because the area in which it was located was considered dangerous or because of other clients using the service. This was especially the situation where the CWO and public health nursing services shared the same centres. When the centre from which the service was provided was considered suitable, PHNs indicated that clients were more likely to utilise the service and PHNs said they felt the service was valued.

Structural environment

In CSS 1, the health centre was only three years old and in addition to the PHN's office there was a separate room for doing dressings and two other interview rooms. The clinic had been purpose built by a local voluntary organisation and the public health nursing service had been represented on the committee that oversaw the development. It was clean, warm, nicely decorated and had a baby changing room big enough to accommodate a buggy. The PHN's office had locked filing cabinets, purpose built shelving and cupboard space. The clinic room was sound-proofed. The pride felt by the PHN in her health centre was evidenced by the number of nursing certificates hanging on the wall in her office.

In CSS 2, the service was delivered from an old "dispensary" that was situated on a very dangerous bend on the road. Although there had been some attempts at improvement over the previous few years the clinic was shabby and the wooden floors dirty. Mothers said the room they took their infants into for weighing was the "grottiest place of the whole lot", although it was better than it had been. The nurses'

room was narrow, untidy and had a very large damp patch on the ceiling over the weighing scales. In CSSs 3 and 4, both public health nursing services were provided from the same health centre but their circumstances were quite different. The health centre itself was situated in the middle of a town, and all car parking in the locality of the centre had to be paid for. The PHN in CSS 3 shared her office space with three other PHNs and a part-time RGN. Within that office, two nurses shared a desk and the four phones were constantly ringing. The PHN for CSS 4 had her own "office" space although dressings were also carried out in that room. Within the centre there was a separate room for weighing infants and for developmental examinations. Clients were very critical of the health centre and said it was dirty and inaccessible.

Material environment

The material environment includes non-fixed resources including the telecommunications system, health education material, and tools for service provision. The availability of appropriate communication channels was identified as influencing the ability of clients and PHNs to make contact with each other and was therefore, crucial at the point of "converging". Sometimes, telephone consultations, rather than face-to-face interactions took place and in those situations an efficient telecommunications system was a necessity. PHNs identified practical telecommunication difficulties when seeking or giving information about clients to other PHNs or other professionals. In each of the CSSs, formal communication channels were limited. The extent to which there was telecommunication support for PHNs varied considerably and this is illustrated in Table 7.7. Nationally almost 80% of PHNs said contact with them was "easy" or "very easy" and only 3.5% (n = 21) said it was "very difficult".

The telecommunications system in CSS 3 and CSS 4 was linked to the main administration building and this was considered very unsatisfactory. When clients rang they were often put "on hold" or diverted to another office and calls often got mislaid or lost. Personal telephones were available to two public health nursing services and for three services, mobile telephones were available, although only one PHN (CSS 3) gave her mobile telephone number to families with infants. Some shared their telecommunications network with other disciplines, and in CSS 2, the

telephone was shared with a CWO. This was a source of great frustration for the personnel involved because only one service could use the telephone at any time.

Table 7.7 Modes of communication

	Case study sites				*National Findings*
	CSS 1	**CSS 2**	**CSS 3**	**CSS 4**	**Findings from PHN questionnaire survey**
Contact	Very easy	Difficult	Easy	Easy	Very easy 28%; (n = 169) Easy 51.7%; (n = 311) Difficult 16.6% (n = 100) Very difficult 3.5% (n = 21) N = 596; Response rate: 97.9%
Personal Telephone	Yes	No	No	Yes	33% n = 202
Answer machine /voicemail	Yes	No	No	No	25% n = 155
Receptionist	No	No	No	No	40% n =245

In the open-ended response to the survey question "What do you consider to be the main factors which impede you in providing a "high quality" service to families with infants under 1 year?" PHNs identified limited, inadequate or absent material resources in three main areas. These were tools for assessment of infant growth and development, materials and equipment for health education and promotion, and technological resources. Equipment and assessment tools for infant developmental checks were deemed to be unavailable, unsuitable or out-of-date by some PHNs. Some PHNs provided examples of these inadequacies including waiting nine months for a weighing scales and having growth monitoring charts that were commercially sponsored and identifiable as such. Resources and materials for general health promotion were also unavailable. Up-to-date, commercially unbiased literature on health promotion, TVs, videos and other teaching aids, resource packs and library facilities appeared to be unavailable to the majority of PHNs. Lack of adequate technological support was also identified as an impediment to providing a quality service to families with infants. No mobile phones, no fax machines, no voicemail service, no computers, no photocopiers are all seen by PHNs to affect negatively the quality of the service they offer to families with infants.

At one case study site (CSS 2) there was a television and video that PHNs had won in a competition organised by an infant food company but they had been waiting more than six months for someone to put shelving on the wall. At CSSs 3 and 4, there were on-going problems with the calibration of the weighing scales although they had a lot of health education material displayed in shelving on the walls. CSS 1 had all new equipment and had a number of health education videos that the PHN played for clients in the waiting room.

Personnel environment

The personnel environment takes account of Donabedian's suggestion that structure comprises personnel resources. In this study the personnel environment is understood to include the PHN, other services accessible to the population served, and the population itself. The inclusion of the PHN and other services in the personnel environment is reasonably uncomplicated but the position regarding the population itself may not be entirely clear. The composition, size, location, as well as epidemiological, social and demographic characteristics of the population served by any given public health nursing service influences the process. Reference has been made to many of these aspects of the population, particularly regarding the need for increased time, knowledge and communication where there are "additional" needs. In CSS 3, for example, an area of material deprivation, the PHN spent a substantial amount of time dealing with eight vulnerable families, often to the exclusion of others. In the group interview in community care area 1, additional needs were also identified although these emerged from a different set of characteristics (migration to the area, both parents working outside the home, and lack of local knowledge). The service that is delivered is greatly influenced, therefore, by the population itself and for that reason, the population served is included in my understanding of the personnel environment. Key aspects of the population for the CSSs as well as nationally are presented in Table 7.1 above.

The public health nursing service is provided within a multi-disciplinary and multi-sectoral environment and consequently, public health nursing service quality is affected by the availability of others. PHNs said that when other support services, professionals, or voluntary groups were available it could lead to a reduction in public

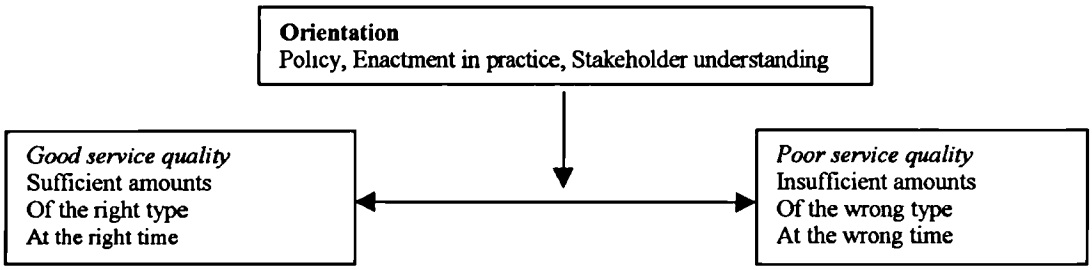
health nursing workload. It provided "good" and "specialist" sources of information and helped them by being "supported" in their work. This was particularly the case in respect of the multi-disciplinary team and also their management structure. Negative aspects were also identified. PHNs reported that under-resourcing of other services led to long waiting lists and families being unable to get the particular service they required at a given time. It also impacted on their service because, if others were not available, the PHN sometimes filled in. Two services particularly mentioned in this regard were the social work service and the area medical officer (AMO) service. When AMOs are not available, developmental clinics may not occur or may be significantly delayed. When waiting lists for clients to see social workers are very long, PHNs said they "filled–in" until one becomes available. Duplication of services may also occur and this is particularly the case with practice nurses and GPs. PHNs made reference to mothers being "swamped" by advice and of mothers receiving conflicting and/ or inappropriate advice from other professionals.

In CSS 1, the catchment area for other professionals, including CWO, GP, and speech therapist incorporated the broad geographical area covered by the public health nursing service and this meant they often knew and had contact with the same families. The GP had worked in the town for a number of years and recently a new GP had joined the practice. They were now offering other services such as "well women" and "well men" clinics and many referrals were made to them through the public health nursing service. The service in CSS 3 and CSS 4 had been involved in setting up crèches, mother and toddler groups and in CSS 4, the public health nursing service was represented on the board of management of a family resource centre. This led to good and collegial working relationships with staff involved and they were often able to intervene on behalf of families with infants in getting crèche places. The CWO, speech therapist, and physiotherapist all worked from the health centre in CSS 3 and 4.

The public health nursing service in CSS 4 allocated two PHNs to the "nine-month developmental" clinic because there was no AMO attached to the area The child care workers were employed under the social work services in CSS 3 area and decisions about their allocation were made by social workers. Sometimes, the PHN in CSS 3

allocated home helps to families where there were child protection concerns and when this happened, the PHN noted "it is all left up to me". She said this was very stressful for her. Many changes in the social work department meant that sometimes the PHN and social worker involved in a case met for the first time at a case conference.

7.6 Service Orientation



The final concept emerging in this study is service orientation. Orientation encompasses the general direction of the service in terms of its goals, purpose and focus. Orientation, as a concept, contributes to an understanding of service quality on the basis of how it is enacted in practice. Different orientations have different foci for service delivery. Data from group and individual interviews with PHNs and PHN managers showed that there was an awareness that the service could be, and was, understood by some clients as having a single orientation towards the identification of child abuse and neglect. Personnel from the public health nursing service were anxious, however, for the service orientation to be broader than that of child abuse and neglect and, crucially, to be *seen to be* broader. Other elements such as support, empowerment and having a good relationship were identified in this regard.

Clients made assessments of the orientation of the service on the basis of their prior knowledge of the service, contact with the PHN, and by the way in which PHNs interacted and communicated with them. This is illustrated below. The following mother, now living in CSS 3 compared her experiences of the services she had received after the birth of her first child (18 months) and her second child (6 months). She had had post-natal depression after both births.

> *Deirdre: I find the lady down here very caring and if she was at the house next door she would always pop in. I thought they were very .... friendly and wanting to help. And she

> would say "what do you think yourself ?. You're the expert here". Whereas in [name of previous area] they were saying "oh are you ok ?" "fine bye", that kind of way .... I find them very good down here .... When I had [name of first child] and they come to see you after you come home. And so she came in. And I had no family around me so I was totally on my own. And I had a bit of post-natal depression. I was, I was depressed. And it was like "you know how to make a bottle ?". "Yeah". "Ok. Right so how do you make a bottle ?". I told her "Yes that's right and how are you feeling ?" and I didn't want to .... so I said "I'm fine, fine" and I knew I wasn't but ... it was just "ok you're fine. I can see I don't need to come again I can see you are fine". [Indivclient3]

In comparing the different experiences identified above a number of issues emerged. These were the amount of contact between the PHN and client, the focus of the interaction, what was communicated, and how it was communicated. All these elements combined to facilitate an understanding by the mother about where the orientation of the service lay. In the first service, the main orientation appeared to be on identifying problems particularly in relation to deficits in maternal competence and the focus of assessment appears to have been solely on the basis of the physical needs of the infant. The needs of the mother do not appear to have been taken into account. It could be argued that the main orientation of this service was towards secondary prevention of infant health problems although a failure to take account of maternal depression is a considerable omission in this.

In the second service (CSS 3), the service orientation was more clearly focussed on supporting the mother (by additional contacts, by identifying broader family issues and making arrangements for their resolution, by the PHN "wanting to help") and towards an empowerment approach to the interaction. The client had a preference for the latter service saying later on in the interview that she had felt "less depressed after this one" because she knew if she "couldn't get any of the family I could always ring the nurse". She said that the PHN had "fixed [name of eighteen-month old] up with a place in the local crèche" and "that was great for him and me" and also that the PHN had given her "good advice about a family problem that had come up". It could be argued that this service was oriented towards primary prevention, active support of the mother in parenting, and an empowerment approach to service delivery.

The above findings confirm the presence of differences in services that can be understood in terms of their orientation. To suggest a bi-lateral orientation, categorised as secondary or primary prevention, or as health promotion and problem

identification, however, is an over-simplification of the situation. First, there is much shared ground between primary and secondary prevention. The promotion of health must first and foremost concern itself with basic needs, one of which is ensuring that the infant is safe and well cared for. It is more likely that a continuum incorporating primary, secondary and tertiary prevention operates. At one end of the continuum, the service orientation is towards identifying and removing risk and at the other end, the orientation is towards mobilising resources and enabling families in parenting.

There is evidence that differences are apparent to PHN managers and PHNs. The PHN manager below, for example, notes that there are "service needs" and "mother(s') needs" and that the processes associated with each of these differs.

> Sally: Now while we do have standard visits and I think they are important from the surveillance point of view and monitoring .... but I am thinking in terms of what a mother might need as opposed to what the service might need. ...I think she [the mother] needs accessibility and the public health nurse should slot in and give some bit of her time and you know just go that little bit out of her way. [Indivman2]

In the course of this study, no public health nursing service was identified as having only an orientation towards one or other type of service but rather, the orientation was broadly towards one or the other direction. Within the CSSs, some clients in some areas understood the public health nursing service orientation to be towards finding fault and identifying problems, while other clients in the same public health nursing area understood it to be towards supporting them and empowering them in parenting. Many clients were able to identify previous experiences they had themselves, or experiences of others, where they reported that the service was interested only in the well-being of the infant and on ensuring that the mother cared for the infant properly. When clients believed that to be the case they generally constructed a negative understanding of the quality of the service.

Data from the CSSs can help to illustrate how differences in service enactment can take place according to the orientation of the service and, how in its enactment it may or may not be supported by the organisational context. In CSS 1, clients and PHN initiated the service several times over a short period of time in the immediate post-natal period. When parenting needs arose (for example, feeding difficulties,

tiredness), they were understood by the PHN as a normal part of the first year of an infant's life because of the constant change. Mutually convenient times were negotiated for contact and the PHN told them she "would come whenever they wanted her, every day if that was what was necessary". Clear and explicit written information was provided about how to make contact with the service and when the service was available. During the contactual phase, the PHN placed considerable emphasis on building a relationship and giving support. The identification of needs was also a focus but clients were facilitated in identifying their own needs through on-going discussion, mutual respect, listening, and active client involvement. Where needs were identified, the PHN supported clients in identifying ways in which these could be met. In general, the PHN concentrated on facilitating the client to look at the internal and external resources available and actively to seek out ways in which these might be enhanced. Post-contactually, the PHN was interested in seeking out and developing local services to provide support for the family as well as referring to appropriate sources of assistance. The discourse around the service included terminology such as "support", "facilitation", "respect", "enablement", "common-sense" and "help" and this terminology was used by both PHN and clients. The PHN in CSS 1 said she always had contact with families with infants at the mandated times although because the GP visit at six weeks was available free at the point of delivery to families, she did not mind if she did not see them at that time. She almost always had additional contact with families.

At CSS 2, 3 and 4 different understandings of the orientation of the service were noted. In CSS 2, some clients said the PHN was always busy, that she only called once to them, and after that they had to go to the clinic if they wanted her. The PHN said she would like to see all families regularly but because of time constraints she could not and that was very stressful for her. In CSS 3, the client and PHN discourse around the service included terminology such as "monitoring", "checking", "observing", "watching", "identifying problems" and "finding fault". Two clients questioned the PHN's motivations in having contact with the family and one said she was relieved at the end of the contact when nothing was found to be wrong.

Some clients from each of the three case study sites indicated that the orientation of the service was on the identification of problems, particularly poor parenting practices, and the removal of identified causes of these. The rationale for service initiation was generally of a mandatory nature and when needs were identified they were understood as a deviation from the normal. One client, in CSS 4, said she would not initiate contact because of the fear of being blamed if something was wrong. In CSS 3, the PHN did not make appointments to call to some families because she said she liked to just check that everything was going OK. During the interaction in the contactual phase, the primary focus was sometimes only on the identification of problems, and other components, such as building a relationship or providing support, did not feature.

Where PHNs believed an orientation towards health promotion and primary prevention was the most appropriate they said the context within which they operated facilitated that when there was

- Sufficient time to undertake the service as often as client and PHN considered necessary and having the service available at mutually convenient times.
- Sufficient knowledge about clients' needs, being able to differentiate normal and abnormal situations and knowing the local services.
- Able to communicate in an appropriate way, had good interpersonal skills and recognised the importance of good communication.
- Had the appropriate structural (being able to choose between home and clinic), material (for example, health promotion material) and personnel (availability of other supportive services, being able to develop these with the local community if necessary) environments available.

The extent to which PHNs indicated that contact was necessary and that they had additional contact varied. These differences are illustrated in Table 7.8. Clients' and PHNs' understandings of the orientation of the service influenced the way in which the service was enacted, and the extent to which understanding and enactment were congruent with each other influenced constructions of service quality. In situations where client and PHN believed a service oriented towards health promotion was

necessary and preferable but were unable to enact the service in that way because of a lack of time, or lack of environmental resources, they viewed service quality negatively. PHNs spoke of being "stressed" and clients spoke of being "distressed" when that happened. Where clients expected the service to be only interested in finding problems, they were "pleasantly surprised" if that turned out not to be the case and then, they understood service quality as being positive. This was especially the case if they had previously experienced a different type of service.

Table 7.8 Organisational support for additional contact if necessary

	Case study sites				***National Findings***
	CSS 1	**CSS 2**	**CSS 3**	**CSS 4**	**Findings from PHN questionnaire survey**
All mandatory contact	Always / almost always	Never	Usually	Usually	First contact: 94.6% always 6 weeks 32.5% always 3 mths 79.7% always 6-7 mths 43.5% always 9 months 68.5% always 12 months 26.8% always
Necessity for mandatory contact	Not essential at six weeks because contact with GP	Not essential 6 weeks	Not essential at 6 weeks, 6-7 months or 12 months	Not essential at 6 weeks, 6-7 months	First contact: 2.6% not essential 6 weeks 52.1% not essential 3 mths 20.8% not essential 6-7 mths 50.8% not essential 9 months 22.0% not essential 12 months 67.1% not essential
Additional contact	Yes, generally	Only if there is a problem	Yes generally	Yes generally	Yes generally: 54.5% Yes occasionally: 23.3% Only if a problem 22.2% N = 589
Necessity for all families to have contact with PHN	Essential	Essential	Essential	Essential	Essential: 82.4%
Necessity for all families to have regular contact with PHN	Essential	Essential	Not essential	Essential	Essential: 63.5%

The extent to which service orientation can emerge from the context within which PHNs work is less clear than the other four concepts of time, knowledge, communication and environment. In an examination of responses to an open-ended question on factors that help PHNs to provide a high quality service, a number of PHNs wrote of their "determination", "dedication", "motivation" and "willingness to put child health first". This suggests that even where there are negative organisational influences, an individual PHN's own orientation may be able to compensate. This

must also be true of situations where the organisational context can support a health promotion oriented service but where the PHN believes the service orientation is towards the identification of problems.

In summary, the importance of the orientation of the service to service quality lies in the presence of how different services are understood. It is accepted here that primary, secondary and tertiary prevention is a simplistic differentiation for a continuum along which service orientation can be understood. Nevertheless, it does provide some understanding of how different services can be understood according to their orientation.

7.7 Summary of Findings

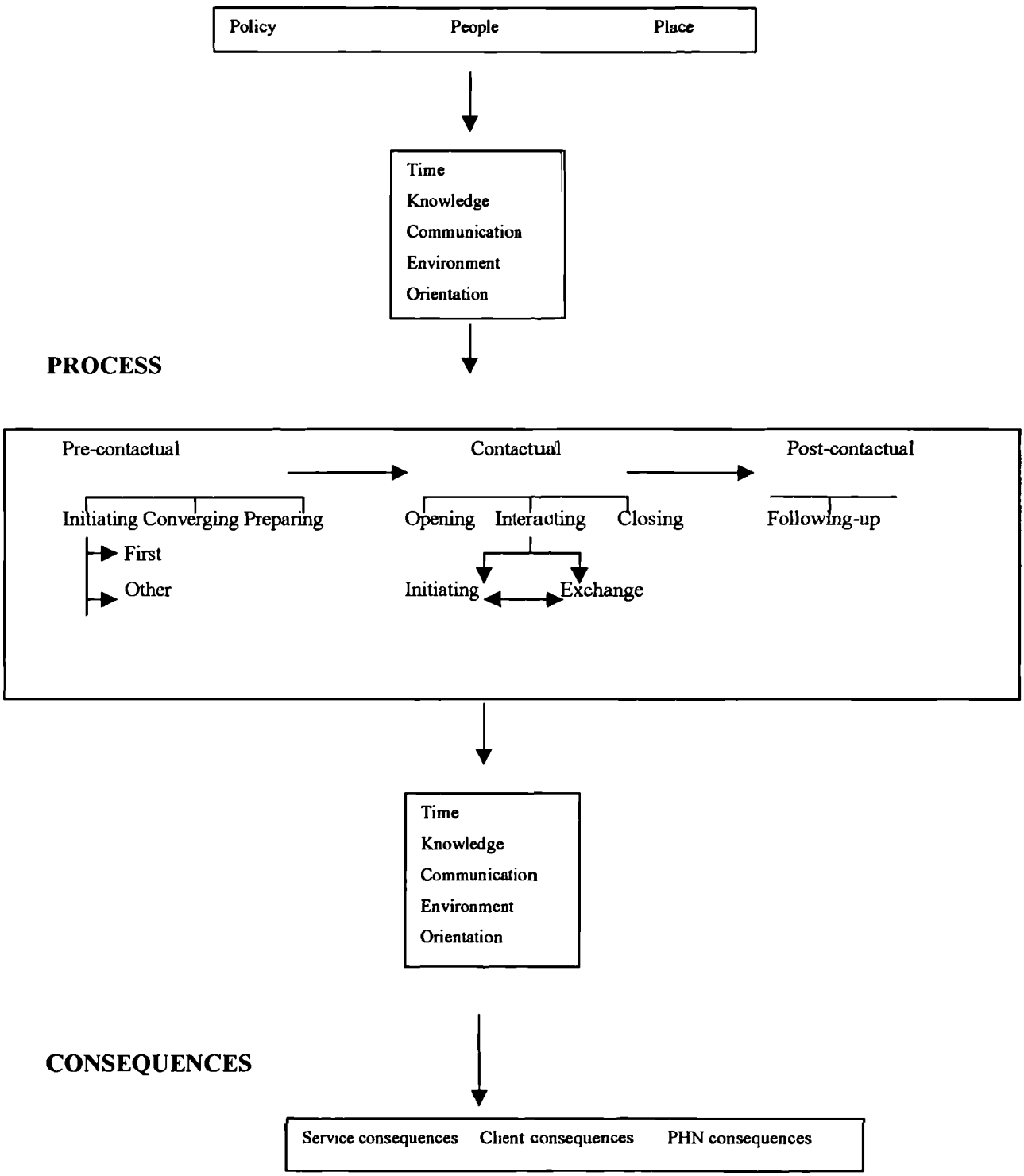
The aim of this study was to develop a model that would enable quality in the public health nursing service to families with infants to be understood in a holistic way. An absence of research on the Irish public health nursing service meant that a description of the service was a necessary first step. In presenting a thick description of the public health nursing service to families with infants in the Republic of Ireland findings have been triangulated from multiple data sources, data types and methods. Seven steps of process were identified and these were initiating, converging, preparing, opening, interacting, closing, and following-up. Findings in respect of each step have been set out in considerable detail and the way in which each one is influenced by the five concepts of time, knowledge, communication, environment and orientation identified. When all five areas of influence are sufficient and appropriate at the point of service enactment, the consequences are identified as positive. When any one area of influence at any one step of the service enactment is not available in sufficient and/ or appropriate amounts, service quality is understood as negative.

The importance of the organisational context was highlighted through the presentation of data from the CSSs. The extent to which the findings from CSSs reflect the broader service in the Republic of Ireland was identified by comparing these findings with those from the survey questionnaire. Three aspects of the organisational context itself were identified as important. These were policies (for example, universal service on an on-going basis for families with infants, replacement

of staff for work with families with infants), people (PHN, client, other statutory and voluntary organisations), and place (usually, health centre or home). The extent to which the organisation supported the delivery of a high quality service was dependent on the level of time, knowledge, communication, environment and orientation made available to any individual public health nursing service. Many differences were identified between and within services. The extent to which the five concepts were available had a direct influence on the way in which the process could be enacted. Consequently, the five concepts of time, knowledge, communication, environment and orientation can be understood to emerge from the organisational structure, are enacted in the process of the service, and can influence the consequences of the service. This model was presented earlier in Figure 6.1. and is now repeated on the following page.

The extent to which the findings from this study can provide a holistic understanding of service quality in the Irish public health nursing service to families with infants is considered in the next chapter where findings are situated within the broader literature.

Figure 6.1 Model of service quality in the public health nursing service to families with infants



Chapter 8: Discussion, conclusion and recommendations

8.1 Introduction

The main aim underpinning this study was to uncover a mechanism to understand service quality that would take account of the scope and breadth of the public health nursing service and, at the same time, accommodate differences in organisational contexts and multiple understandings of key stakeholders. This study has been premised on the belief that assessment of service quality is an epistemological issue and consequently, an explication of the basis for how understandings of service quality are constructed is necessary. The review of literature, presented earlier, identified outcome measurement as a dominant paradigm in assessing service quality. There is broad support for an understanding of outcome as "not simply a measure of health, well-being or any other state but rather, a change in status confidently attributable to antecedent care" (Donabedian 1988, p1745). Difficulties arise from outcome measurement in understanding quality in the public health nursing service to families with infants. These difficulties are related to aspects of the definition of outcome that highlight the need for change to take place, the importance of attribution, and the predetermination of the outcomes identified. Other issues were also identified particularly in relation to the influence exerted by making certain aspects of care more visible than other aspects and the sometimes long-term nature of outcome measurement. In a service concerned with "prevention", such as that of the public health nursing service, attribution, pre-determination and the need for change to take place are particularly problematic.

8.2 Issues of theoretical interest

The overall aim of the study, identified above, was met in two ways. First, by an examination of how key stakeholders construct service quality and second, by an examination of how the organisational context within which the service operates influences the process. A combination of both aspects of the study have led to the presentation of a model that enables service quality to be understood in a holistic way. The overall contribution of this model to the literature on service quality is now considered.

8.2.1 A process model

The literature review identified two difficulties in respect of service quality. First, the need to take account of multiple stakeholders' understandings and second, the need to identify an alternative to outcome measurement as a mechanism for understanding service quality. Key stakeholders' constructions of service quality were a key focus for this study and the model presented in Figure 6.1 facilitates the incorporation of multiple stakeholders' accounts of quality in the public health nursing service. The model also posits the process of the service as an alternative to outcome measurement. The two difficulties identified in the literature review are therefore taken account of in this model. The following discussion draws out the holistic understanding of service quality and compares and contrasts issues arising with other available literature.

Both health visiting and public health nursing literatures commonly present the process of care as taking place at the time of direct contact between the PHN and client. Much of the exposition of the processes of care has focussed on components of the service emerging at that time (Cowley 1991, Pearson 1991, Chalmers 1992, 1993, de la Cuesta 1994, Cowley 1995a, 1995b, Twohy and Reif 1997, Collinson and Cowley 1998, Knott and Latter 1999, Bowns et al. 2000). Chalmers (1992), for example, aimed to uncover how experienced health visitors conceptualise and evaluate their health visiting work. The model of "giving" and "receiving" comprised three phases, "entry", "health promotion" and "termination", all of which take place within the time of direct contact. Twohy and Reif (1997) in aiming to describe "all activities" utilised by PHNs in home-based delivery of care, audio-taped fourteen home appointments. Their understanding of "all activities", therefore, is also situated within what I call the contactual moment. For others, presentation of data around the effectiveness of the service demonstrates an implicit understanding of the service as being focussed on the contactual phase. Elkan et al. (2000), in their systematic review of the effectiveness of home visiting, identified the content of a range of interventions in terms of the contactual phase. This content included many different components, including counselling and anticipatory guidance, parent education, support, enabling exploration and clarification of issues, increasing knowledge, identification of

postnatal depression. Again, it seems clear from this that the understanding of the effectiveness of the service is based on the components of the contactual phase.

My own understanding, prior to undertaking this study, very clearly situated process within the contactual period and a list of potential process measures developed in early 1999 included only those relating to the time of contact (see Appendix 1). The findings from this study provide clear evidence that this understanding was limited. Key stakeholders, in constructing an understanding of service quality, identified situations that took place both before and after direct contact. In examining the public health nursing service process an exposition of the contactual phase provided a central focus, but a focus only on this point of the service was clearly untenable. Consequently, a seven-step model that incorporated pre-contactual, contactual and post-contactual phases was identified. This model takes account of multiple stakeholder constructions and facilitates inclusiveness and holism.

This model takes account of three steps in the pre-contactual phase, *viz*, initiation, converging and preparing. Client initiation of the service has been a focus of previous studies (Pridham et al. 1994, Pridham 1997, Earle and Burman 1998) but the steps of converging and preparation have not heretofore been made explicit. The importance of converging as a step in the pre-contactual phase has not been clearly evident in the literature and where it has been raised as an issue it has generally been subsumed into that of initiation. "Converging" describes the coming together of client and PHN and the focus is on how PHNs and clients approach each other after initiation of the service and prior to contact. The findings from this study demonstrate that it is possible to initiate the service but, in the absence of appropriate and accurate information about the client or PHN, the process may not proceed. The importance of being able to choose the location for contact is particularly important and although others (for example, Jansson et al. 1998) have also identified this as important to understandings of service quality, its positioning within the overall process has not been considered. The step of converging has become particularly important in the Irish context because of the rapid increase in the numbers of mothers who now work outside the home (Williams and Collins 1997). This trend is set to continue and

consequently, opportunistic contact will become even more rare and the need for converging more important.

PHNs and clients make preparations for contact but the wider literature relating to public health nursing generally only focuses on making appointments (ICHN 1995, CoN 1998). This is also the case for services elsewhere. Bowns et al. (2000), for example, in their study of clients' satisfaction with the health visiting service, reported a lack of an appointment system as a particular source of dissatisfaction but in doing so they did not make reference to other aspects of preparing for contact. This study showed that clients' constructions of service orientation are critical at this step in the process. If the public health nursing service was understood to be concerned only with child protection or fault finding, clients were more likely to ensure the house and other children were clean and tidy while others made sure their husband or partner was present. This preparation has not emerged as a feature in other studies on health visiting and public health nursing (Chalmers 1992, de la Cuesta 1994, Byrd 1998) or service quality (Øvretveit 1992). PHNs identified a number of preparations they undertook in order to ensure good service quality and these included identifying all known information about the client, getting out records and ensuring they had the necessary literature or equipment particularly if they were undertaking a home visit. This step was also important in respect of child protection issues. If a PHN had concerns about a family, then an appointment might not be made prior to contact because of the risk of clients not being present.

The finding of an opening step at the contactual phase has previously been identified by Chalmers (1992) and the step of interacting has been well described by other authors, especially those examining the health visiting service in the UK. In this study, the step of interacting has been presented as having two parts, *viz*, initiating and exchanging. It is suggested here that this distinction is necessary because it is possible to initiate an interaction but if this is not followed by an exchange, key stakeholders may construct service quality as being negative. In addition, it was evident from the findings that the step of initiating contact did not necessarily mean that client or PHN would initiate communication about any particular topic, issue or component. If the circumstances at the step of interacting were not conducive (for

example, raising an issue about sudden infant death syndrome with a depressed mother, raising a constipation problem with the PHN when constantly interrupted), initiation would not take place. Each contactual phase commonly has many initiations and exchanges and the findings from this study demonstrate that an understanding of service quality may be constructed on the basis of any individual one of these. If one exchange was unsatisfactory within the overall interaction (for example, a PHN not looking at an infant latching on to the breast), a client may construct the quality of the service to be poor and may not initiate the service again.

In general, the findings from this study in respect of the interaction provide support for anecdotal accounts of the service in the Republic of Ireland provided previously (Kelly 1995, Curry 1997). Key components of the interaction were identified and include, *building a relationship, giving support, advice and information*, assessment and identification of general, specific and family health needs. In this regard, then, there is evidence that the public health nursing service in the Republic of Ireland has many similarities with services elsewhere (Cowley 1991, Pearson 1991, Chalmers 1992, 1993, Cowley 1995a, 1995b, Twinn and Shiu 1996, Macleod Clark et al. 1997, Twohy and Reif 1997, Collinson and Cowley 1998, Jansson et al. 1998, Knott and Latter 1999, Bowns et al. 2000). Further research is required however, particularly in relation to the extent to which various elements are underpinned by best practice.

The step of following-up, in the post-contactual phase, is important and must be taken into account when considering service quality. If clients did not follow up on the PHN's advice, information, or intervention, positive consequences of the service would not be achieved, irrespective of how good the quality of the service was. If a client, for example, did not follow up on a referral to a hearing clinic, then despite the PHN having identified a hearing deficit in the infant and made appropriate arrangements for intervention, the outcome would not be any different than if the client had not seen the PHN. In some public health nursing services, follow-up was a key element of the service (for example, with the mother regarding contraceptive advice). In other services, follow-up was very limited (for example, the infant referred for hearing assessment). Where follow-up was expected by the client but did not take place, constructions of service quality were often negative. Direct referral to

and feedback from other professions were critical at this point because they impacted on the need for active follow-up by PHNs. PHNs and PHN managers made many references to the lack of appropriate records and its influence on service quality. A lack of ways in which public health nursing work could be documented in order to illustrate quality in the service to others was particularly problematic. In that regard the findings from this study will be most helpful because in setting out the steps at which constructions of service quality are formed, issues relating to each of these can be identified.

Other process models

In the literature two exceptions emerged with respect to understanding process as the contactual moment (Øvretveit 1992, Byrd 1995, 1997, 1998) and both authors have presented process models of service delivery. The process model developed in this study has common elements with those of Byrd and Øvretveit. Each identifies process steps that can be understood as taking place in pre-contactual, contactual and post-contactual phases according to a temporal trajectory. Byrd's presentation of three different models suggests the author herself is making limited claims for the transferability to a broader context. The three models presented by Byrd are

- voluntary versus required visiting process (Byrd 1995)
- child-focused single home visiting (Byrd 1997) and
- long-term maternal-child home visiting (Byrd 1998).

On examination it seems clear that in presenting three models, Byrd is attempting to accommodate an absence of multiple stakeholders' understandings, particularly at the point of initiation. The first step of Byrd's models are presented variously as "identifying medium" (Byrd 1995), "surveying and designating" (Byrd 1997), and "responding and scheduling" (Byrd 1998). In my study the three steps identified in the pre-contactual phase (initiating, converging and preparing) can accommodate the differences identified across the three models described by Byrd in respect of the pre-contactual phase. In Byrd's models, the steps of preparation and converging are not clearly defined although some activities associated with each are presented as part of "selling and scheduling". An additional step of "going to see" / "approaching the

home" is presented by Byrd (1995,1997, 1998) that did not emerge in my study. This may be because Byrd's focus is on the home as the setting for contact and consequently, a step of "approaching" the home is necessary. A close examination of this step, however, suggests that its content is more in keeping with gaining knowledge about the neighbourhood than with any specific element of the service to the particular family. Other differences are noted between Byrd's models at the point of interaction, and each of the three models present different steps at this point. These include "seeing" (Byrd 1995), "gaining permission", "making the care-giving judgement" (Byrd 1997), and "starting with mothers' expressed concerns", "supporting and validating care-giving" (Byrd 1998). All three of these differences are accommodated in the steps of interacting (initiating, exchanging) identified in my study.

Øvretveit's (1992) "flow-process" model identifies eight separate steps (selection, entry, first contact, assessment, intervention, review, closure and follow-up). The step of "first contact" differentiates first and subsequent contacts between client and service and according to Øvretveit refers to the first time "the client meets a person representing the service" (p55). The "opening" step in my study is conceptually similar to Øvretveit's first contact and is used here to illustrate a point of fundamental difference between Øvretveit's understanding of service quality and the understanding emerging from this study. In the flow-process model an understanding of service quality is constructed on the basis of one process that takes account of the client's journey from service selection through discharge. My study found that such a journey, in respect of the public health nursing service to families with infants, contained many individual processes, each of which has seven steps. The seven steps identified in my study distinguish points at which understandings of service quality can change from positive to negative and from negative to positive over the course of a single process between provider and client. The influence on stakeholders', particularly clients', understanding of service quality at each step of the process (such as "I didn't know when they were there") and each individual component of an interaction ("I was so upset about what was said that I never allowed her to come again") is clear. Stakeholders do not construct their understanding of service quality on a broad overall understanding of the service, but rather on the basis of each

individual component and each individual step. Øvretveit's model cannot accommodate this understanding of how service quality is constructed.

Both these models are limited in a number of ways, but specifically in respect of their potential to accommodate multiple stakeholders' constructions. Byrd focuses only on home visiting from the perspective of the PHN. Øvretveit focuses only on the client. Further, Byrd, in presenting three different models, implicitly concedes that any one of these models is not sufficiently transferable even within the home visiting public health nursing service. Øvretveit's understanding of service quality differs fundamentally from the findings from this study. His model suggests that clients' understandings of service quality are premised on an overall experience of the service, underpinned by the gap between expectations and experience, from the time of selection to exit. This is at odds with the findings from my study where there is strong evidence supporting an understanding of service quality constructed on the basis of individual steps in individual processes.

To summarise, the seven-step model (initiating, converging, preparing, opening interacting, closing, following-up) presented in this study provides a novel framework for understanding service quality. These steps take account of constructions of service quality as presented by PHNs, PHN managers and clients. A focus on process offers an alternative to outcome measurement as a single understanding of service quality and in presenting the process, it extends the general understanding of process to encompass a three-phase trajectory. Of all those who have written on the subject, only two authors (Øvretveit 1992, Byrd 1995, 1997, 1998) present understandings of service quality that encompass a broader understanding of process, and the limitations of both these models are presented above. A theoretical contribution emerging from this aspect of the study lies in the presentation of a model that can accommodate multiple stakeholders' constructions and this offers the prospect of an ontologically holistic approach to assessing service quality. A further contribution lies in the identification of a legitimate alternative to outcome measurement that takes account of epistemological difficulties arising from the nature of public health nursing work with families with infants. The long- term nature of outcome measurement has been identified as a key problem when assessing service quality (Carr-Hill and Jenkins-

Clarke 1995, Macleod Clark et al. 1997). An explicit account of each step of process enables measures of quality to be "located in a shorter time frame and in the context of the process of the interaction" (Macleod Clark et al. 1997 p18). Finally, the importance of individual steps within individual processes in constructing an understanding of service quality offers a theoretical contribution because it is diametrically opposed to an understanding that values only outcome measurement. The process as presented through the temporal trajectory does not, however, take account of the organisational context within which the service is provided. An explication of this aspect of the model is now provided through an examination of the relationship between the concepts of time, knowledge, communication, environment and orientation in respect of organisational context, process and consequences.

8.2.2 Concepts

The organisational context within which the public health nursing service is provided emerged throughout this study as being of key importance to service quality It is argued here that the five concepts of time, knowledge, communication, environment and orientation can emerge from the organisational context within which the service is provided, that they are embedded within the process of the service, and that they can influence constructions of service quality. These five concepts can, therefore, be understood as structure to process links. In my study, organisational context is understood to encompass policy, people and place. The five concepts identified in my study are not unique or new although they have not been presented collectively heretofore. A key contribution of this study lies in the combination of the five concepts, with the organisational context and the three-phase process Other authors have studied the organisational context of health visiting and research undertaken by Cowley (1991), Macleod Clark et al. (1997) and Cowley and Billings (1999) is particularly noted in this regard. A discussion of each of the five concepts is now situated within the available literature.

Time

Time emerged as a key concept in this study and several instances of its application in the process of public health nursing were identified and these can be broadly

categorised as *sufficient time* and *at the right time* (see Figure 7.2). Instances identified included circumstances where additional time was necessary; consequences of a lack of time; the amount of time PHN or client spent in the area; timeliness of the service, particularly in respect of availability and responsiveness; and the temporal nature of general, maternal and infant health needs. A brief account of how other authors have drawn attention to the importance of time is now presented. Where PHNs spent less time with clients than considered necessary, service quality was reported by PHNs (Reutter and Ford 1996, Twinn and Shiu 1996, Macleod Clark et al. 1997), and clients (Bowns et al. 2000) to be poor. Lack of punctuality in attending homes (Bowns et al. 2000) and busyness and delays in the clinic setting (Knott and Latter 1999) were identified as important to understandings of service quality. Chalmers (1992) identified the crucial importance of timeliness as crucial in effectively unearthing problems and making interventions. When PHNs were interrupted in their interactions with clients, service quality was viewed negatively (Clark et al. 1986).

The emergence of "time" from the organisational context within which PHNs work was identified by a number of different authors (Cowley 1991, Twinn and Shiu 1996, Macleod Clark et al. 1997, Jansson et al. 1998). Cowley (1991), for example, identified "timing" as one of three basic social processes that emerged in health visiting. The other two processes were "continuing" and "knowing". In a follow-up paper, an absence of time was identified as a key influence on the lack of health visitor involvement in a community development project. Macleod Clark et al. (1997) identified "sufficient time" as a key process indicator in their presentation of results and suggested that monitoring of skill / grade mix should take place to provide evidence of primary care nurses having sufficient time to provide the necessary elements of the service. Williams (1998) also identified time as a central component in model of service quality proposed and notes that where there is insufficient time it can be caused by a lack of staff and other resources. In the current study, each of the above aspects of time identified emerged in the course of the study as having an influence on the process and consequences of the service and in addition, as having emerged from the organisational context. Where insufficient numbers of staff were available or where there was a very large workload it was apparent that the service

was under considerable time pressure. This was especially the case in CSS 1 where the population size, absence of other support services and the short length of time the PHN had worked in the area all influenced constructions of service quality. A policy of non-replacement of PHNs meant that the service was unavailable to clients during the time a PHN was absent, and consequently PHNs cross -covering a public health nursing service where the PHN was absent had less time available for their own caseloads. When the absent PHN returned from leave her workload was increased because she had to have contact with families who would have been seen had she been there.

The absence of an out-of-hours service, or a service that was available at a suitable time for clients led to reports of an inflexible and unresponsive service and this aspect particularly influenced the likelihood of converging. The ability to make appointments at times that were convenient (and with sufficient notice) to the client was influenced by the availability of clerical and secretarial staff. A key influence on the public health nursing service in recent years was clients' lack of time and this was directly related to the demographic characteristics of the population with whom the PHN worked. In many middle-class areas mothers returned to work within twelve to fourteen weeks after the infant was born and consequently were often unavailable to the PHN during service opening hours. The timing of mothers' return to work is, of course, influenced by the policy regarding paid maternity leave which, in this country, is eighteen weeks, four of which must be taken prior to the birth. The importance of time in respect of maternal, infant and family needs was a constant factor underpinning the need for contact. The early post-natal period was identified as a time of high need and the length of time it took from the birth of the infant to notification to the public health nursing service was critically important in this. The length of time a PHN had worked in an area influenced her local knowledge and the knowledge held by clients about the service and this was influenced by the availability of permanent and full-time PHN posts.

Knowledge

The emergence of knowledge as a key concept relating to service quality in public health nursing is also unsurprising. Components, sources and the application of

knowledge were all identified as influencing understandings of service quality. Knowledge as both an attribute and an element of service quality and PHNs' knowledge of clients' characteristics, local knowledge and clients' own knowledge base as well as knowledge of the scope of the public health nursing service, were central to the initiation step in the pre-contactual phase. Knowledge was also central to the converging step, especially knowledge of both client and service availability. By being knowledgeable, PHNs could identify areas of need, provide specific interventions in an evidence-based way (for example, advice and information, assessment of growth and development, clinical nursing care) and evaluate care given. At the following-up step in the post-contactual phase, local as well as professional and personal knowledge by the PHN was identified as enabling a good quality service. For clients, the professional and experiential knowledge of the PHN was identified as important to a good quality service.

Cowley (1991 p650), drawing on the work of Glasser and Strauss, reports that an "awareness context", necessary for health visiting work, requires "knowing or realizing, being conscious or informed". Having expertise in a content area (Reutter and Ford 1996), being competent (Jansson et al. 1998), having appropriate qualifications (Cowley 1991, Twinn and Shiu 1996) and being an informed and credible practitioner (Macleod Clark et al. 1997) were all identified as being important components in other studies on service quality. Giving appropriate (Bowns et al. 2000), useful (Jansson et al. 1998, Knott and Latter 1999), and definitive (Collinson and Cowley 1998) advice and information were key elements in the determination of effectiveness. A generalist knowledge base (Reutter and Ford 1996), an all-round view of the family (Jansson et al. 1998) and being able to distinguish normal from abnormal (Cowley 1995a) all contributed to a construction of service quality. Experienced nurses were found to be more productive than inexperienced ones (Clark et al. 1986) and experiential knowledge was greatly valued, "perhaps more than her professional, scientific knowledge" according to Collinson and Cowley (1998 p502). Clients' knowledge of the service influenced service utilisation (Luker and Chalmers 1990, Collinson and Cowley 1998). Health visitors' knowledge of the client and the family were key factors enabling the development of a relationship (de la Cuesta 1994). Cowley (1991 p651), for example, notes that "the openness of an

interaction related to the extent of knowledge that is recognised, accepted and acknowledged by the interactants" in the exchange. Knowledge of other services is central to the process of referral identified by Luker and Chalmers (1989).

In the UK situation, Cowley (1991) identified a number of sources of health visiting educational preparation including initial professional education and training, on-going development programmes and input from professional leaders. The formal knowledge base of the PHN is greatly influenced by the policy regarding educational preparation for the role. All PHNs in the Republic of Ireland are qualified nurses, midwives and public health nurses and, as the finding from this study illustrated, almost 20% have a fourth registration with An Bord Altranais. Almost half of all PHN respondents to the national survey (46%) held a certificate and almost 30% held an additional diploma. It could be argued from this that organisational support for education of PHNs is very high but this argument is greatly undermined by the apparent limited commitment to on-going education where more than one in four PHNs had no relevant education in the previous year. Experiential knowledge was influenced by the educational policy that requires PHNs to have two years' post-registration experience prior to entry to public health nursing. The length of time a PHN worked in any given area influenced the level of local knowledge she held and the informality of this knowledge base meant that sometimes its importance was not recognised, even by PHNs themselves. Lack of knowledge by others, particularly those who had responsibility for financing the service, was considered an impediment to the resourcing and development of the service. An inability on the part of service providers to make explicit the value of their work compounded this lack of knowledge.

Clients' knowledge of the service was a key factor in initiating the service and clients wanted information about the scope of the service. Clients' own knowledge base was influenced by their own demographic characteristics as well as by where they lived. First-time mothers were believed to be particularly vulnerable and mothers living away from family or friends were often reported to be isolated. In those circumstances their need for the public health nursing service was reported to be greater. The availability of other professionals or voluntary organisations meant that, in some areas, PHNs and clients had access to substantial up-to-date information

while in other areas this was not available. Clients particularly highlighted the importance of services not only being available but of knowing about them. Clients viewed the credibility of the PHN as a key element in constructing an understanding of the quality of the service and sometimes, this was based on the clients' knowledge of the PHN's personal situation. Having sufficient knowledge relating to the right areas was a key factor in understanding service quality.

Communication

In this study, three main areas around communication emerged in respect of understanding service quality in the public health nursing service to families with infants. These were communication between PHN and client, communication within the public health nursing service itself, and communication between the PHN and others. Good communication between PHN and client has been a central feature of many studies on the process of public health nursing and health visiting (Chalmers 1992, Cowley 1991, 1995a, 1995b, de la Cuesta 1994, Macleod Clark et al. 1997, Reutter and Ford 1996, Jansson et al. 1998). When communication between PHN and client is open (de la Cuesta 1994), individualised (Macleod Clark et al. 1997), friendly and interested (Knott and Latter 1999) and when the communication style facilitated a partnership approach with the client, service quality was understood as being positive. Good communication between the PHN / health visitor and GPs was a key contributor to service quality (Reutter and Ford 1996). Where GPs were positive about the health visiting service to clients, health visitors found access to clients was easier (Chalmers 1992). Good communication with other services was a key issue for consideration in working up the referrant agency when making referrals (Luker and Chalmers 1989) and feedback from other agencies facilitated continuity of client care (Macleod Clark et al. 1997). Bowns et al. (2000) identified difficulties in contacting the health visitor as leading to poor levels of client satisfaction while Twinn and Shiu (1996) noted problems with the interpersonal skills of some PHNs.

The importance of collaboration and co-operation with other agencies and personnel has been identified by a number of authors as being important in relation to the delivery of the service (Luker and Chalmers 1989, Reutter and Ford 1996, Macleod Clark et al. 1997, Jansson et al 1998). It is accepted here that co-operation and

collaboration are not simply a matter of good communication. Such processes also include other elements, such as knowledge of the role of others, having sufficient time to collaborate, being orientated towards a co-operative approach to working, and being in an environment where other services operate. Nevertheless, in the absence of good communication between various personnel, co-operation and collaboration are not possible and for that reason its importance is noted at this point. Good communication can be facilitated or impeded by the organisational context within which the service operates. At the step of converging, for example, the presence of a good telecommunication system was crucial. Despite this only one third of PHNs reported having a personal telephone and the remainder shared their telephone with other PHNs or with other professionals. At the time of the national survey, only one health board area provided mobile telephones and no PHN had access to e-mail in their place of work.

PHN and client interpersonal skills were crucial to how service quality was constructed. The importance of listening and responding in a caring, individualised and responsive way were highlighted throughout the process of the service. Being able to communicate with parents when problems were identified, the selection of appropriate topics for initiating an interaction and the inter-dependence of the relationship between the PHN and client on good communication were all features of the service. The extent to which good interpersonal skills are supported by the organisational context within which people work is important to service quality. Interpersonal skills can be understood in terms of an educational requirement and where PHNs are not skilled in this way, the organisation within which they work has a remit in ensuring that they do become more skilled.

In the majority of instances direct referrals between the public health nursing service and eye and hearing specialist services could not take place and referral through a third party, for example, GP or AMO was standard practice. A lack of feed-back was also identified and both these issues can be understood as organisationally driven. Unwillingness by medical services to accept direct referrals from a nursing service is clearly a policy position that individual PHNs are not in a position to change. This therefore needs to be addressed at an organisational level and in that regard there is

some evidence emerging from this study that some services can and do accept direct referrals from PHNs, provide feedback always or almost always, and that this is related to positive constructions of service quality. Good communication between professionals can be supported formally by the presence of formal fora for discussion at local level. There was no evidence that these were generally available in the Republic of Ireland and only 16% of PHN respondents noted their presence, of whom 6% specifically identified case conferences. It is unlikely that case conferences, focussed around individual difficult situations, can provide the organisational support necessary for good communication networks although they may, of course, facilitate the development of informal communication networks between professionals.

Formal communication structures within the public health nursing service appear to be limited. In CSS 2, no meeting between colleagues had taken place in the four months the PHN had been working there. Formal communication structures include records held and the infant health record (the green card) identified in respect of the service provided was generally understood to be grossly inadequate. The public health nursing services in one health board area had made some progress in changing this card but in the remaining areas the same infant health record had been used since 1978. Organisational support for communication in this regard would necessitate the provision of more comprehensive and encompassing documentation.

Environment

The environment within which the service is delivered emerged as a key concept and three different aspects of the environment were identified. These were physical ("fixed" and "stable" elements for example, the health centre or the home), material (non-fixed elements, for example, health education material, weighing scales), and personnel (for example, the other services available, the population served by the service, the PHN) environments. The community as a setting for the public health nursing service is a key factor that distinguishes the public health nursing service from other nursing services where the work takes place in a hospital or other institutional environment. The environment within which the service takes place is a key influence on the process of the service. Being able to choose whether to have contact in the home or health centre was crucial to constructions of service quality in

previous studies. Clients, PHNs and PHN managers all identified having choice about the setting for contact as a key element in constructing a positive understanding of service quality. The home setting was considered to be particularly crucial at certain times (for example, first contact) and for certain activities (for example, building a relationship, identifying hidden needs) but at other times the health centre was identified as being more appropriate (for example, the nine-month developmental examination). Other authors have also identified the home setting as an influence on service quality. Reutter and Ford (1996), for example, identified being able to assist clients in their own environment as a key element in client and PHN satisfaction. Other authors have identified the importance of the home contact in the overall construction of service quality (Jansson et al. 1998, Knott and Latter 1999) and being able to do more home visits was particularly important (Machen 1996). Indeed Knott and Latter (1999) suggested that single, unsupported mothers view clinics as places where the infant is weighed but not as a place for contact with the PHN.

Difficulties with the physical environment (for example, lack of space, excessive noise, lack of child-friendliness and overcrowding in the health centre) were identified in the course of this study as influencing service quality. Other studies have also taken this aspect of the organisational context into account (Cowley 1991, Twinn and Shiu 1996, Macleod Clark et al. 1997). Macleod Clark et al. (1997) note that the "availability of appropriate environment and facilities" was an important organisational prerequisite for service quality. Cowley (1991) suggests that there is a concrete physical context related to the health centre. Knott and Latter (1999) found that clients were critical about overcrowding and the lack of privacy at health centres and this may be linked with some clients' understanding that the health centre is only seen as being for weighing the infant. The structural environment was also important in this study in terms of physically accessing the service. Distance from clients' homes to health centres, difficulties with parking facilities, the presence of stairs, corridors too narrow for prams and buggies were all identified as impeding good service quality in this study. These findings are consistent with those of Jansson et al. (1998) in relation to health centres in Sweden. An absence of appropriate material resources - including sometimes very inexpensive items such as a Manchester rattle for hearing testing or health promotion material - emerged in this study as an

influence on constructions of service quality. Clark et al. (1986) also identified this as an issue and noted that nurses spent a considerable amount of time at clinics seeking missing pieces of kits or appropriate forms.

The personnel environment is central to the work of PHNs and different client groups have differing needs and the population served is incorporated within the personnel environment. The findings from this study are in keeping with those elsewhere, that suggest different populations have different needs and the implications of this have been discussed earlier. Other aspects of the personnel environment relate to the availability of other services. This study found that where other services were not available (for example, AMO, social worker), the PHN's workload was increased and this detracted from the time available for other aspects of the service. When other services were available, the PHN could refer to other sources of support and this reduced the level of input necessary from the PHN. Luker and Chalmers (1989) and more recently, Macleod Clark et al. (1997) also identified the availability of other services as an influence on service quality.

The findings from this study provide strong support for the environment as a key influence on how service quality is constructed in the process of public health nursing to families with infants. Differences in the availability of appropriate and sufficient structural, material and personnel environment clearly point to different organisational contexts and differences in organisational support for the service.

Orientation

The final concept emerging in this study is service orientation. Orientation encompasses the general direction of the service in terms of its goals, purpose and focus. Its relevance to quality in the public health nursing service lies in key stakeholders' understandings of the main orientation of the service and in how this is enacted in practice. Many authors writing in the area of public health nursing and health visiting have raised this concept as an issue for service quality. Reutter and Ford (1996), for example, note that the difference in orientation between public health nursing work (on health promotion and illness prevention) and other nurses (on illness) is a key issue in how the service is valued. Cowley and Billings (1999)

identified a legitimate focus of health visiting work on the "individual client" or "community as client" as necessary structural conditions for the establishment of new services. Jansson et al. (1998) also identified a focus on prevention as a key element of public health nursing work and of the centrality of this in how service quality is understood. The findings reported by Luker and Chalmers (1990) are consistent with those above. These authors found that the value placed by clients on preventive services influenced the extent to which "entry" to the home or to the "family situation" was easy.

Other authors have presented different understandings of orientation within the service. Twinn (1991), writing about the health visiting service, presented four paradigms. These were "individual advice giving", "environment control", "psychological development" and "emancipatory care". A dual axis situates each one of these "paradigms" within a directive or non-directive, and individual or collective orientation. The enactment of each one of these paradigms in practice differs. "Environmental control", for example, situated within the directive-collective domain was influenced by an orientation towards epidemiology and is enacted through a search for health needs by establishing a health profile of the community. This contrasts with an orientation towards "psychological development" which is underpinned by a focus on parental support and involves an individual non-directive, partnership approach to practice. It is not clear, however, whether Twinn is suggesting that PHNs and health visitors can operate from one paradigm only. In the present study, many PHNs identified both "advice giving" and "the development of community services" as being central to their work and it seems, therefore, that an individual and collective focus are therefore both possible.

Two aspects of paradigm differentiation have been considered in the light of the findings from this study. First, paradigms can be differentiated on the basis of where the *main* focus lies (for example, giving advice *or* developing community services). The findings from my study suggest that equal attention is not paid to all potential foci. A second area of differentiation can be the extent to which the enactment is underpinned by directive or non-directive interaction. In this as in many other studies (Machen 1996, Knott and Latter 1999, Worth and Hogg 2000), non-directive

communication and ways of interacting were identified as being supportive of a health promotion and empowerment service orientation. Directive and authoritarian interactions were more clearly associated with fault and problem finding. Machen (1996), for example, reported that mothers found an authoritarian and directive approach less favourable than a facilitative and empowering one. Collinson and Cowley (1998) identified certain personal attributes of the health visitor that were viewed as valuable including, friendliness, approachability, respect and confidence. Reutter and Ford (1996) noted that PHNs wanted to be seen as providing a non-judgemental, non-threatening, honest, non-controlling, reaffirming and supportive service. The findings from my study support that.

In this study, when key stakeholders understood the service to be oriented towards the positive promotion of health, the service was constructed as being more acceptable and valued by clients. Clients were more likely to initiate the service and to feel supported and validated in their parenting rather than feeling "relief" that the visit was over and that the PHN had gone "until the next time". Both individual PHN and service orientation were important in how the service was constructed. The relationship between the PHN and client was a key issue in whether this understanding of the service was constructed but other elements, such as the service being easily available, accessible and contactable were also important. Where the service was understood to be oriented only towards the identification of problems, particularly those of child abuse and neglect, the service was generally initiated by the PHN at the mandated times. There was evidence from this study that the service can often be understood to have a main focus on the identification of child abuse and neglect. Some PHNs were aware of this and identified many ways in which they tried to dispel this understanding. When PHNs believed the orientation of the service to be towards supporting families with infants but were not supported by the organisational context in enacting this in practice, they constructed the service quality to be poor. At a policy level, where public health nursing service contact with families with infants was not deemed necessary while a PHN was on leave or even at week-ends or evening time, the extent to which the service was oriented towards supporting mothers and infants was necessarily limited. The high level of need in the first few months of an infant's life means that where PHNs only undertook the mandated

contact, the main orientation of the service could be constructed as being focussed on secondary prevention only.

Findings from the CSSs suggest that no individual public health nursing service to families with infants was understood by all stakeholders to be concerned only with either primary or secondary prevention. Rather, a continuum appeared to operate where the key orientation was towards one or other end. It is not surprising that two foci were identified in terms of the Irish service. The literature review in this study identified a dual policy and legislative mandate. One mandate, derived from the Notification of Births Act (1909, extension 1915) and recently re-stated in the Denyer et al. (2000) report, focuses on the promotion of positive health and the early detection of problems in children. The second mandate is informed by the need to protect children from physical, emotional and sexual abuse and neglect. This mandate is legislated for under the Children Act 1991. These two mandates might be considered as broadly similar to work presented by Dingwall and Robinson (1993) where the authors raised questions about whether the health visiting service was underpinned by an orientation towards policing the family or towards supporting the family.

It is clear therefore that orientation as it emerged in this study is a key factor in how an understanding of service quality is constructed by all stakeholders. Where the expected orientation of the service was towards support and health promotion (rather than the identification of problems) but where this was not provided, the service quality could be constructed in a negative way. If a secondary preventive service was expected and provided, the service could be constructed in a positive way. There is considerable support in the literature for the importance of different orientations of service in constructing an understanding of service quality (Dingwall and Robinson 1993, Twinn 1991, Jansson et al. 1998). There is also considerable support for presenting a service that is supportive towards families with infants as being more acceptable and valued than one concerned only with the identification of problems. The former, however, requires a greater commitment in terms of time, contact, availability and accessibility. It also requires that the service has the capacity to facilitate good communication, understanding and empathy with the needs of families

with infants, and sufficient time for necessary contact in an appropriate setting. Each one of these factors was identified as important in how the orientation of the service was understood by stakeholders.

8.2.3 Individual or organisation

The extent to which any public health nursing service has sufficient time, knowledge, communication, environment and orientation can be a function of both the individual and the system within the organisational context. In the findings it was evident that an individual PHN could make available higher or lower levels of time, knowledge, communication, environment and orientation to the service. In giving clients a personal home telephone number, for example, the PHN could compensate for the lack of an out-of-hours service. By understanding the orientation of the service to be concerned only with the identification of problems or child protection, an individual PHN could compromise a policy commitment to a service orientated towards health promotion. By prioritising child health work over clinical nursing, an individual PHN could make available more time to the public health nursing service in that area. By not keeping up to date in her practice, the PHN could reduce the level of knowledge available to the service.

In the context of service quality, however, and in keeping with the literature on clinical governance (Scally and Donaldson 1998), it is suggested here that a need for organisational support for a high quality service is necessary. In situations where individual PHNs do not have sufficient or appropriate knowledge or communication skills, the organisation should have in place a mechanism for identifying and rectifying this. It is argued here that a key function of the organisational context is to ensure that each individual public health nursing service has the necessary elements to provide a high quality service. The findings from this study clearly illustrate that these are, appropriate and sufficient time, knowledge (experiential, professional, personal and local), communication (formal and informal, lateral and vertical), environment (structural, personnel and material) and orientation (policy, enactment in practice, stakeholder understanding).

One further issue is also presented here. In the methodology, some consideration was given to Donabedian's work on service quality and difficulties in relation to the delineation of concepts within the structure, process and outcome framework were identified. In particular, reference was made to Fihn (2000) who wrote that "knowledge is the key to good quality care and knowledge is in and of itself neither a structure nor a process" (p1741). The findings presented above in respect of knowledge clearly demonstrate that knowledge cannot be delineated according to structure or process and, in this regard, the findings from this study are supportive of Fihn's assertion. Each of the five concepts however, can be understood as emerging from the organisational context within which the service takes place (structure) and as being the substantive areas of influence in respect of the process of the public health nursing service. Consequently, it is posited here that knowledge is only one of five "keys" to good quality care and further, that the construction of service quality lies neither in structure nor in process but in the links that join them. This is based on the very clear evidence that emerges from the study which demonstrates and explicates how service quality is constructed.

8.2.4 Recommendations for model development

1. Further research is necessary to test this model and it is recommended here that testing could take place with

- public health nursing services to families with infants elsewhere
- public health nursing services to other client groups
- services delivered by other professional groups.

2. More specific and more focussed research is also necessary in respect of each of the concept areas of time, knowledge, communication, environment and orientation. Such research should have as its focus

- equitable service provision and
- stakeholders' constructions of sufficiency in each of these areas.

3. The development of indicators of service quality developed on the basis of this holistic model is an important step in its application to policy and practice. It is recommended here that the commitment to multiple stakeholder understandings underpinning the development of the model be maintained in any such development.

8.3 Issues of organisational interest

The extent to which the five concepts identified above are available to the Irish public health nursing service are now considered. The first three objectives of the study identified a description of the structure, process and outcome of the service as a key focus for examination. These three objectives were met and a thick description of the organisational context, the process and consequences of the service were described in detail in the presentation of findings. The term "consequences" has been used throughout when writing about the effects of the service because I believe the description provided does not meet the definitional requirements of "outcome". Other authors, (for example, Byrd 1998) have used the term "consequences" to illustrate the effects of the service. Unless indicated otherwise, references made throughout the text to constructions of service quality take account of each of the three stakeholder groups.

Issues of organisational importance included the extent to which services differed across the collective case. Public health nursing services at local level have, since their inception in the early 1960s, been geographically bounded by population size, and recommendations made in other reviews of the service since 1975 (DoH 1975) have identified an average population size of 2,500 people as appropriate. In this study, the mean average population size was almost four thousand (3,997) with a range of between 500 and 16,500. This represents an increase in the ratio of population size to PHN since the figures were last collated in 1995 and where the average population size was found to be less than 3,000 (2,895) (DoH 1997b). Population size as a measure of the workload attached to a public health nursing area is a basic and simplistic measure but in the Republic of Ireland it has often been the only measure available. Consequently, it has been used commonly by PHNs (ICHN 1997) and others (DoH 1997b) in making a case for additional service resources. The findings on the increase and inequity in population size will be of interest to service providers, managers and planners. At a practical level, an average increase in population size means that greater prioritising within each public health nursing service must take place and, as reported in this study, when that happens, public health nursing work with families with infants "goes on the back burner".

Service configuration

The findings from this study provide evidence, for the first time, of the extent to which the public health nursing service is synonymous with the PHN. RGNs were identified as being available to less then half (44%) of all public health nursing services and school nurses to a little more than half (53%). These nurses are not available on a full-time basis to the service and PHNs noted on the questionnaire and in interviews that RGN allocation to the service was generally on the basis of providing a week-end or evening service for people who required clinical nursing care. In CSS 1, an RGN was allocated to the public health nursing service for four hours weekly and also provided the week-end service. These findings support evidence presented anecdotally in submissions on and accounts of the service (including the substantial report of the CoN 1998) that RGNs in the community are employed only on a part-time, temporary basis. The findings have a particular value in providing some quantification of this area. Hospice care nurses were available to 85% of public health nursing services although again, PHNs noted that these nurses were only available to people who have a diagnosis of cancer and were not generally available to all terminally ill patients. A finding that almost forty percent of PHNs continue, in the absence of a home help organiser, to have sole responsibility for the recruitment, allocation and supervision of the home help service is important because it highlights a personnel managerial responsibility held by PHNs. The functioning of the home help service within that of the public health nursing service has been identified by PHNs in submissions to the Department of Health and Children and others (ICHN 1997) but reference to it in reports of community care services is rare. In relation to this study, the most significant finding is the absence of support staff within the service for public health nursing work with families with infants. This is in keeping with the assertion of many PHNs that this work is not prioritised at a policy level. Further, it leads to an assertion that while some aspects of the PHN's work (for example, clinical nursing care) can be undertaken by other nursing personnel, other aspects, particularly relating to families with infants can only be undertaken by PHNs. The findings from this study provide an evidence base from which discussions about service provision can take place, particularly in respect of a shift from a service

that has been synonymous with one nurse to the employment of many nurses or others within the service.

Formal PHN knowledge base

The importance of a good knowledge base in providing a good quality service is evident from the findings from this study. In respect of the educational preparation and on-going education of PHNs, the findings from my study suggest that, as a group within nursing, PHNs could be considered to be well educated. This is the first time that such data have come into the public domain. These findings are especially timely because of ongoing policy debate about the necessity of a midwifery qualification as a pre-requisite for entry to the public health nursing education / training programme. Currently, all PHNs are registered general nurses, registered midwives and registered PHNs. The findings from this study demonstrate that more than 10% of PHNs working with families with infants hold a Bord Altranais registration in the area of sick children's nursing and a further 9% hold a psychiatric nurse registration. In total, almost one in five PHNs hold three registrations prior to commencing the public health nursing course and this must be considered an exceptionally high level of education. Almost half of all respondents (46%; n = 249) held an additional certificate, almost one in three (30%; n = 165) held a diploma and 7.5% a degree. These data were collected in 1999 and it is very likely, given the policy shift in Irish nursing from apprenticeship to university degree-based education since that time, that even more PHNs have undertaken a degree programme. The finding that more than one in four PHNs had not had any education relevant to their work with families with infants in the previous year is, therefore, particularly disappointing. It raises many questions about the extent to which PHNs can provide up-to-date evidence-based information for families with infants. At a time, for example, when the use of the Edinburgh post-natal depression scale is being called into question elsewhere (Adams 2002), it was being introduced in the CSSs in this study. A quantification of the findings relating to on-going education in the previous year can only provide a partial picture of the extent to which a service may or may not be evidence based and the content and context must also be taken into account. It is clear, however, that in the absence of on-going education it is more difficult for a service to be evidence-based and the findings from this study provide a starting point for further investigation.

Inter and intra disciplinary communication

Vertical and horizontal communication between the PHN and others is central to constructions of service quality. At the point of initiation, policy makers are at one regarding the need for contact between families with infants and the public health nursing service as soon as possible after discharge from maternity hospitals (DoH 1994, CoF 1998, Denyer et al. 2000). There has been some criticism of the apparent tardiness of the service in this regard (Murray et al. 2000). The findings from my study help in the understanding of this problem by providing empirical evidence relating to the timing of the birth notification and the extent to which PHNs are committed to early first contact with families. More than one in three PHNs reported that they did not receive the birth notification until the infant was five or more days old but crucially, for the majority of PHNs there was no difference in the number of days between receipt of birth notification and the first visit. This was supported by the findings from the CSSs where there was ample evidence that PHNs prioritise birth notification visits over other child health work and generally visit new mothers as soon as the birth notification is received.

Almost no formal, standardised mechanisms for communication between various professionals involved in the provision of services to families with infants were in place within the health services. This is a surprising finding because many reports dealing variously with public health nursing (O'Sullivan 1995, DoH 1997b), community care services (NESC (National Economic and Social Council) 1986, DoH 1994), family health (CoF 1998), and child protection (SEHB 1993) have all recommended that formal communication mechanisms be put in place. Many PHNs noted that the only time they met with other professionals involved with families was in the stressful context of case conferences. A chronic lack of feedback from medical colleagues to PHNs was a particularly striking feature of the findings from this study. Only 29% of PHNs reported that eye specialists provided feedback more than 70% of the time and the figures for hearing specialists (56.5%) and GPs (32%) were also very low. Although problems with feedback from eye and hearing specialists may be related to the lack of direct referral mechanism from PHNs to these disciplines, a lack of feedback between GPs and PHNs presents many problems in practice.

The findings from this study suggest that some of this lack of feedback may arise from the relative positioning of nursing and medicine in a health service hierarchy where, according to PHNs, medical personnel are slow to initiate contact with them. The findings from this study also suggest that there is a tension between PHNs and GPs in some areas that is clearly related to the ways in which the respective services are financed at the point of delivery. Many mothers made reference to the costs of GP care and to the potential benefits of being able to contact a PHN for a service that is free at the point of delivery to avoid unnecessarily seeing the GP. This is an area for consideration and further research when the new primary care strategy (DoHC 2001b) is being implemented. This strategy is premised on an assumption that the allocation of all community nursing and other services according to GP practice will lead to an improvement in communication. This may not happen if the tension identified above regarding financing of the services is not taken in to account.

The findings relating to a lack of feedback between the PHN and social worker (only 29.7% of PHNs reported getting feedback more than 70% of the time) provides evidence of on-going communication problems identified in previous reports (SEHB 1993, Commission of Inquiry 1995, Butler 1996). Differences in levels of feedback between the PHN and speech therapists (75% of PHNs said they always received feedback) and that provided by social workers offer evidence that it is possible to structure organisational support for good communication between professionals.

Environmental support

Difficulties emerging in respect of the environment within which the public health nursing service is delivered were clearly identified in this study and the findings will give scope to practitioners, managers and planners to identify and prioritise areas for improvement. Where health centres were unavailable or unsuitable for the provision of services, the public health nursing service was greatly impeded in providing a high quality service. A lack of basic material resources including, for example, accurately calibrated weighing scales or personal telephones was identified. The costs involved in getting many of these resources are insignificant and given their importance in the provision of a public health nursing service their absence is extraordinary and

difficult to explain. It is possible that the crucial nature of these resources in the provision of a high quality public health nursing service has not been made explicit until now. If that is the case, the findings from this study provide considerable evidence in making the case for improved resources. Differences across other services in the availability of personnel were identified as impacting on the public health nursing service. In the absence of an AMO, for example, two PHNs provide a child development clinic. In the absence of social work involvement, a PHN continues to have involvement with families with infants. Where a PHN is absent, however, their child health work is either not carried out or else is "cross-covered" by other PHNs. This raises issues about responsibility, accountability and the prioritisation of public health nursing work with families. It also raises issues around the "safety net" function of the public health nursing service in ensuring that when all else fails, some professional is there. This was particularly clear in respect of the social work service where although PHNs felt they did not have adequate or appropriate skills or resources, they indicated that "somebody had to continue to go in" if the social workers did not respond to a request for contact. These problems may be compounding communication difficulties between PHNs and social workers and will need to be taken account of in any future examination of the respective services.

There was general agreement between stakeholders in this study about the needs of families with infants and several areas of need including physical, emotional, practical, and financial were identified. In this regard, two key issues emerged that will be of assistance in planning services. First, the first year of life is a time of extraordinary change and this means that although some families have more needs than others, all families have some needs. The need for families to be able to access a reliable and credible source of guidance for "small things" was particularly highlighted in this study. Many caseload-weighting tools comprise elements relating to material deprivation and in the UK (Horrocks et al. 1998, Crofts et al. 2000) and the Republic of Ireland (Murray et al. 2000) some authors have suggested that services should be targeted to areas of high material deprivation. The findings from this study illustrate that such targeting may preclude many people who have the potential to benefit from the service. Women who breast-feed, for example, were

found in this study to require additional public health nursing support and these mothers are generally from higher socio-economic groups.

Other mothers from higher socio-economic groups were identified as being particularly vulnerable and isolated following the birth of an infant because of their lack of social networks and because of financial pressure to work long hours prior to the birth of an infant. There is considerable evidence from this study that PHNs do target within their own services on the basis of a "personal policy". Many PHNs noted that they provided additional support to mothers who were breast-feeding, to mothers with physical health problems (for example, following birth by Caesarian section) and to mothers who were living in isolation, irrespective of socio-economic status. This provides clear evidence to policy makers and planners that targeting on the basis of material deprivation may be overly simplistic.

The second finding of importance in this regard emerging from the study relates to the position of fathers within the overall provision of service. Fewer PHNs (45%) indicated that involving fathers was central to the quality of the service than any other named component. Further, no client identified by the PHN who subsequently made contact with me for agreement to be interviewed was male. This lends credibility to Mc Keown et al.'s (1998) assertion that organisational and service support for paternal involvement with services, including the public health nursing service, is limited. This is an area that requires further examination and findings from the current study can provide a starting position for such an examination.

Service orientation

Stated policy on the focus of the public health nursing service in the Republic of Ireland has identified health promotion with families with infants as a primary focus (Denyer et al. 2000). There is also an acknowledgement that, in a small number of situations, the need to protect children may provide the over-riding focus (ICHN 1997, DoH 1997b, CoN 1998, Denyer et al. 2000). The findings from this study suggest that, for many clients, the starting point for their understanding of the service is one that is situated within a child protection mandate. This understanding was consolidated in situations where there was only limited contact with the public health

nursing service, where the focus of the service appeared to be only with the health and well-being of the infant, and when the service appeared to be inflexible, unresponsive and not individualised to any particular client. PHNs, however, generally understood the "availability" of a service, free at the point of delivery, to be sufficient for service initiation and cited it many times as a key descriptor of service quality. Clients' constructions of the focus of the service, their prior experience, the nature of the problem and the preference of the public health nursing service over any other comparable service all contributed to the likelihood of initiating contact with the service. Availability of the service is, therefore, only one influence on client initiation and is insufficient on its own to facilitate service utilisation.

The findings from this study suggest that developing a relationship between PHN and family, and having knowledge about the service were crucial elements in how service quality was constructed. The relationship between client and PHN could be understood as a pre-requisite, a component and a consequence of service quality. The development of a relationship needed time, on-going contact, flexibility, and an understanding that the service was focussed on the broader family need rather than specifically on infant and child protection. Where PHNs only had an initial contact followed by a second contact when the infant was three months old, clients were unlikely to construct the PHN as having a broader interest in the family. Indeed, such a visiting pattern was likely to re-affirm their understanding of the service as one concerned with protecting children. Yet, these two contacts would meet the mandated requirement as laid down even in the most recent policy documents (Denyer et al. 2000). The findings from this study suggest that if the service provided wants to present itself as having an orientation towards health promotion and support of families (as presented in policy), there must be an understanding of the need for contact and the importance of building relationships. On-going contact requires organisational support. Policy makers and other stakeholders can draw on these findings to make explicit the extent to which the service provided is one that is orientated towards support and positively enhancing health or one that is primarily concerned with and focussed on the need to protect children

The findings relating to the mandated and other contacts provide considerable information about the level of service provided and a number of important aspects emerged. A majority of PHNs did not "always" have contact with families at certain mandated times in the first year of life. This was especially the case for the 6 week contact (31.5% always had contact), the 6-7 month contact (46% always had contact), and the 12 month contact (24% always had contact). The finding relating to the six-week contact is understandable because at that time clients often return to their own GP or to the maternity hospital for a six-week check up, free at the point of delivery. The findings in respect of the 6-7 month contact and the 12-month contact are less easily understood. Only 49% of PHNs felt contact at 6-7 months was essential for the quality of their service and less than one-third (32%) of respondents felt that contact at 12 months was necessary. A majority (63.5%) of PHNs, however, reported that regular contact with families was necessary and more than half (53.9%) indicated that they "generally" saw families at other times. Clients identified a need for more contact with the public health nursing service in the early post-natal period. It is suggested here that public health nursing services that cannot or do not accommodate even the mandated number of contacts with clients with families are unlikely to be understood as providing a service that is considered supportive or oriented towards health promotion. In view of these findings, a review of the timing of mandated contacts between PHNs and families with infants is timely.

A number of areas of interest arise in respect of the centrality of various components of the service. Giving advice on feeding was identified as being very central by almost 90% of PHN respondents and this is consistent with the data emerging from case study sites where feeding problems were a key area of family and infant need. Infant and maternal health were also identified by almost all PHNs as being very central to their work and this is to be expected. Less than 80% of PHN respondents, however, identified accident prevention as being very central to their work. This finding is entirely at odds with the mandate for PHNs outlined in the Denyer et al. (2000) report where giving information on accident prevention is highlighted as a key element of the service. Other issues, particularly those relating to child protection (for example, checking for child abuse and neglect) were also identified in the enactment of the public health nursing service. Only 75% of PHNs identified this element of

their work as central to the delivery of a high quality service. Given the importance attached to this element of public health nursing work by clients, there is clearly a difference in stakeholders' understandings of the focus of the service. The identification of maternal, infant and family need and the identification and enactment of ways in which needs could be met is central to any understanding of service quality. When advice and information given was successful in meeting the identified needs of clients, they were more likely to use the service again and to be positive about the service. Where it was not successful, clients called into question the credibility of the PHN and indicated they would not raise problems or questions again. This is also an important finding that has implications for the way in which PHNs evaluate their service.

Client satisfaction surveys are not a feature of the Irish public health nursing situation and in the absence of this as a formal mechanism of feedback, informal mechanisms are necessary. The ability of the PHN to learn from clients about what works and does not work as well as the "conditions" under which these consequences occur is greatly diminished when feedback is not provided from clients.

There was a shared understanding that an important focus for the public health nursing service was to reassure and validate parents in how they parented. Many PHNs and clients noted that by giving reassurance that the infant was progressing and that the parent was "doing a great job", clients' self esteem and confidence increased. This in turn had a positive effect on how they parented. Weighing the infant was a very important part of this reassurance and was often used to provide empirical evidence for mothers that they were parenting in a satisfactory way. The findings also suggest that mothers can use weighing of the infant as an opportunity to raise other issues with the PHN and this is particularly the case if there is a suitable (quiet, private and not busy) environment. This is an important finding because, as far back as 1996, Hall called into question the benefits of routine weighing and noted that there was little justification for this taking place on a regular basis The findings from this study suggest that regular weighing does provide opportunities for other "work" to take place and it provides opportunities for mothers to raise issues of concern. An absence of calibrated weighing scales, appropriate centile charts together with

inaccurate weighing techniques (for example, with clothes on) in some situations, does however lend some support to Hall's (1996) assertion outlined above.

Community needs assessment was not identified as a priority for PHNs and only 53% of respondents identified this aspect of their work as being central to the delivery of a high quality service. The development of community services fared even worse, with fewer than half of respondents identifying this element as being central to their service. A lack of emphasis at a community level is a cause for concern although this is somewhat tempered by the finding that almost half of all PHNs were involved in setting up support services. These mainly included the development of mother and toddler groups, breast-feeding support groups and informal networking among mothers. It is possible that PHNs do assess community needs but they do so in an informal and undocumented way. Each case study site had a profile of the public health nursing service and included within this document were, information relating to population demographics, geographic spread, local services available and their respective contact information, as well as the availability of the public health nursing service in terms of clinics and office times. At two of the case study sites, the PHNs were closely involved in local voluntary services, both as members of the management committees.

One possibility considered here regarding community development is that, for some PHNs, the work they undertake at community level is understood as something done in a voluntary capacity (almost all meetings were held outside work time) and is not therefore considered as part of their public health nursing work. This is a possible explanation for the discrepancy seen in the proportion of respondents who said this work formed a central part of their service and the higher proportion who subsequently indicated they had been involved in setting up services for families with infants. Alternatively, it is possible that community needs assessment and service development do not form a central component of the service. If this is the case then it does call into question the extent to which the public health nursing service has or enacts a public health role. Reutter and Ford (1996) identified a focus on the population as the hallmark of public health nursing and other authors support that understanding of public health nursing (Chalmers and Kristajanson 1989, Beddome et

al. 1993, Baldwin et al. 1998). Within Bryar's (2000) understanding of primary health care, less than half of the public health nursing services identified in this study could be understood to be embracing the wider elements of a community-oriented and public-health approach. These findings have a contribution to make to wider policy issues relating to public health nursing. Many elements of the public health nursing preparation courses (for example, group work skills, community development, policy development, epidemiology) are focused on educating PHNs to deliver population-based services (Chavasse 1990, National University of Ireland, Cork 2001). If this education is not used in practice then an examination of both curriculum and practice is warranted to bridge the gap.

8.3.1 Contribution to public health nursing

A number of key findings relating to a description of the public health nursing service have been highlighted in the preceding section and these findings raise questions about the extent of the service, the elements of the service and the organisational context. Although some of these findings are supported by literature from elsewhere, these findings can lead to new understandings of the Irish public health nursing service in the context of the international situation. Other researchers will have a substantial body of data relating to the service and in future they will be able to draw on this work as a baseline for further work. The thick description provided will enable readers to compare the public health nursing service described with their own service and this description therefore facilitates transferability of the findings. Finally, the description provided will enable specific recommendations regarding the service to be made and in that regard the findings presented will have substantial practical application to the public health nursing service in the Republic of Ireland.

8.3.2 Recommendations for the service

1. It is recommended here that further research on the Irish public health nursing service is necessary. Such research should have as a main focus

- further exposition of the seven steps of process particularly those of "converging" and "preparing" in the pre-contactual phase.
- Processes and consequences of the follow-up of clients, particularly in respect of the third-party referral mechanisms currently in place.

2. It is also recommended that the information provided from the findings of this study be used as a baseline from which different services can be compared and contrasted. Such comparisons will enable PHNs', PHN managers', and clients' expectations to be in keeping with the service delivered.

8.4 Summary and Conclusion

To summarise, this study has had as a key focus quality in the public health nursing service to families with infants. A literature review, comprising three chapters, focused on the public health nursing service to families with infants and service quality. A systematic mini review of literature was also carried out in line with recently available protocols (Griffiths 2002). The overall aim of the study emerged from the literature review and this aim was to develop a model that enables quality in the public health nursing service to families with infants to be understood in a holistic way. Case study was identified as an appropriate methodology and a two-phase approach was adopted. Methods employed in the first phase included national surveys of PHNs (response rate 54%; n = 948) and PHN managers (response rate 75%; n = 24), and small group interviews of PHNs (n = 3) and PHN managers (n = 2). This phase was guided by Yin's work on case study, and Donabedian's (1988) structure, process, outcome framework was used to operationalise the PHN questionnaire.

The second phase of the study was theoretically guided by social constructivism and methodologically by Stake (1978, 1994, 1995). This stance was supported by the qualitization of quantitative data that took place in relation to the survey data. This methodological approach was advantageous because it facilitated theoretical sampling of case selection, provided a starting point of collection and analysis of other data, and facilitated the triangulation of data sources, data types and methods. Data were gathered on the public health nursing service at four case study sites during this phase. Sites were identified using theoretical sampling from the national survey and group (n = 3) and individual interviews (n = 14) with clients, PHNs and PHN managers were carried out. Non-participant observation of the public health nursing service at each of the case study sites also took place. Analysis of individual cases, followed by cross-case analysis and triangulation of data, sources and methods was undertaken.

Findings from the study were presented in two chapters. Chapter 6 presented findings relating to the three phases (pre-contactual, contactual and post-contactual) of public health nursing service process. Within these three phases, seven steps of process were made explicit. Ways in which five key concepts of time, knowledge, communication, environment and orientation were embedded within the process were made explicit and their influence on constructions of service quality highlighted. The importance of organisational context was highlighted in Chapter 7 and the emergence of the five key concepts from the organisational context identified. This was done through the presentation of data from the case study sites and the extent to which this reflected the broader service in the Republic of Ireland was noted by comparing these findings with those from the survey questionnaire. The discussion that has taken place in this chapter centres on the holistic nature of the model and situates the findings within the overall literature on public health nursing and service quality.

To conclude, a model for understanding service quality has been presented that takes account of key stakeholders' understandings, the process of the public health nursing service, and the organisational context. This model can facilitate an understanding of service quality in a holistic way. Seven steps of process (initiating, converging, preparing, opening, interacting, closing, following-up) have been described in considerable detail and their importance in constructing an understanding of service quality made explicit. Five key concepts, time, knowledge, communication, environment and orientation, emerging throughout the study have been considered. The emergence of these key concepts from the organisational context within which the service operates and their influence on the process of the service lends support to their importance within the overall model. It also lends support to an assertion that these five areas form the links between structure and process. Where any one of these areas is insufficient, inappropriate or misconstrued at any one of the seven steps of process, service quality will be understood in a negative way. Understandings of service quality are premised on each concept at each step and this represents a substantially different understanding of quality than that offered by outcome measurement. The model emerging from this study, therefore, provides an ontologically and epistemologically holistic alternative to outcome measurement in health service quality.

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Appendices

Appendix 1: Dimensions arising from the literature review (March 1999)

Structure

Service provision: Attendance rates, the environment of the centre and parental perception (Twinn and Shiu 1996)

Organisation of nursing care: Qualification of the nursing staff; the responsibilities of the nursing staff ; Parents' perceptions of the organisation of care (Twinn and Shiu 1996, Macleod Clark et al. 1997)

Nature of the facility (Grant et al. 1996, Beutow 1996)

Degree and nature of surveillance (Grant et al. 1996)

Continuity (Wensing et al. 1994, Macleod Clark et al. 1997)

Preference time of visiting for district nurses (Berry 1995)

Availability (Wensing et. al. 1994, Buetow 1995)

Access (Wensing et. al. 1994)

Geographic access (Buetow 1995)

Adequate service provision (Wensing et al. 1994, Macleod Clark et al. 1997)

Material privacy (Wensing et al. 1994)

Financial accessibility (Wensing et al. 1994)

Number of consultations (Gastrell 1986)

Bureaucracy (Wensing et al. 1994)

Institutional image (Lamb-Havard 1997)

Process Measures

Interpersonal relationship

Nature of relationships (Grant et al. 1996, Macleod Clark et al. 1997)

Acknowledgement of personhood (Grant et al. 1996)

Disposition of decision making (Grant et al. 1996, Bear and Bowers 1998, Kendall 1993, Machen 1996)

Nature of communication (Grant et al. 1996, Latter 1993)

Judgements about assistance required (Grant et al. 1996)

Nature of communication with health care team (Grant et al. 1996, Macleod Clark et al. 1997)

Clarity of communication (Stewart et al. 1999)

Confidentiality (Wensing et al. 1994)

Personal and moral aspects of care (Kitson 1986)

Elements of client-professional interaction (Latter 1993, Bear and Bowers 1998, Macleod Clark et al. 1997)

Willingness of nurse to share herself in interaction (Kitson 1986)

A positive approach (Kitson 1986)

Manner (Buetow 1995, Macleod Clark et al. 1997)

Humaneness (Wensing et. al. 1994)

Mutual trust (Wensing et al. 1994, Chalmers 1993)

Empathy (Wensing et al. 1994)

Co-operation (Chalmers 1994, Wensing et al. 1994)

Elicitation of and responsiveness to patient concerns and expectations (Stewart et al. 1999)

Responsiveness to patient concerns and expectations (Stewart et al. 1999)

Empowerment (Anderson 1996, Stewart et al. 1999)

Consideration of patient's ability and desire to comply with recommendations (Stewart 1999)

Friendliness (Tarlov et al. 1989, Stewart 1999)

Respectfulness (Stewart 1999)

Emotional support and reassurance (Stewart and Tilden 1995, Stewart 1999)

Therapeutically conducive relationship (Williams 1998)

Technical Indicators

Health information (Macleod Clark et al. 1997, Bear and Bowers 1998)

Detection of problems and abnormalities (Earle and Burman 1998)

Source of information for parents on childcare, parenting and growth (Earle and Burman 1998)

Provides developmental testing (Earle and Burman 1998)

Presence and planning of judgement about care nature (Grant et al. 1996)

Professional and technical competency (Bear and Bowers 1998, Macleod Clark et al. 1997)

Proactive approach (Thompson 1998)

The identification of health needs (Chalmers 1992, Twinn and Shiu 1996)

Referrals made (Tarlov et al. 1986, Macleod Clark et al. 1997)

Reflective practitioner (Hogston 1995)

Give help and advice (Machen 1996, Macleod Clark et al. 1997)

Particpatory or collaborative approach to care (Latter 1993)

Outcome Measures

Expectations and reasons for attending clinic (Gastrell 1986)

Misuse of child safety seat (Block et al. 1998)

Utilisation of service (Olds et al. 1986a, Schuster et al. 1997, Jansson et al. 1998)

Reported adherence to advice given (Jansson et al. 1998)

Reported positive infant mood (Olds et al. 1986b)

Worry or concern about baby (Olds et al. 1986b)

Parental management of behaviour (Olds et al. 1986b)

Provision of appropriate play material (Olds et. al. 1986b)

Avoidance of restriction and punishment (Olds et al. 1986b)

Number of visits to emergency room (Thompson 1998, Johnson et al. 1993, Olds et al. 1986b)

Parental peace of mind (Thompson 1998)

Comparative prevalence of various disorders (Starfield 1991, Butz et al. 1998)

Breast-feeding initiation rate (Fulton et al 1998)

Duration of breastfeeding (Fulton et al 1998)

Parental knowledge of sleep and settling behaviour (Kerr et al 1997)

Incidence of SIDS (Powell 1986, Carpenter et al. 1983)

Perinatal complications (Rayburn Starn 1992)

Maternal education (Olds et al. 1988)

Number of days on public assistance (Olds et al. 1988)

Parental perception of coping skills (Astill et al. 1998)

Problem solving strategies (Astill et al. 1998)

Infant nutritional status (Johnson et al. 1993)

Mothers self esteem (Johnson et al. 1993)

Number of caretaking issues (Pridham et al. 1994)

Mother infant bonding (Vines et al. 1994)

Positive comments from users (Dawson et al. 1998)

Positive comments from other service providers (Dawson et al. 1998)

Accuracy (Wensing et al. 1994)

Reassurance for mothers (Earle and Burman 1998)

Confirms the absence of health problems (Earle and Burman 1998)

Frequency of clinician help (Pridham et al. 1994)

Proportion of help from clinician (Pridham et al. 1994)

Affordability (Buetow 1995)

Acceptability (Buetow 1995)

Efficiency (Maxwell 1984, Mid-Western Health Board 1994, Wensing et al. 1994, Erkel et al. 1994)

Effectiveness (Wensing et al. 1994, Maxwell 1984, Mid-Western Health Board 1994, Redfern and Norman 1990, Dawson et al. 1998)

Burden on the patient (Wensing et al. 1994)

Completion of planned activities (Erkel et al. 1994)

Immunisation uptake (Erkel et al. 1994)

Mother's psychiatric symptoms; child' psychological adjustment; functional status (Jones-Jessop and Stein 1991)

Breast-feeding support group use (Fulton et al. 1998)

Parental knowledge of sleep and settling behaviour; sleeping behaviour of infants (Kerr et al. 1997)

Improvement in health status (Erkel et al. 1994)

Perceived problem solving competence (Pridham et al. 1994)

Equity (Maxwell 1984, Whitehead 1993, Dawson 1998).

Relevance to need (Maxwell 1984, Machen 1996)

Effectiveness (Maxwell 1984, Machen 1996)

Social acceptability (Maxwell 1984, Machen 1996)

SCALES

Community life skills scale: 33 item measure assessing client's skills in organising daily living (Rayburn Starn 1992)

Difficult life circumstance scale: 28 item scale designed to determine the extent of chronic family problems (Rayburn Starn 1992)

NCAST feeding scale: 76 items in six subscales measuring parent-infant interaction during feeding (Rayburn Starn 1992)

HOME (Observation for the Measurement of the Environment) 45 item scale which assists the nurse to determine the parent's ability to provide an enriching environment for the child (Rayburn Starn 1992)

Denver Developmental Screening Test (DDST): Strengths and weaknesses of the child are identified in gross motor, fine motor, language and personal-social areas of development (Rayburn Starn 1992)

Judged Ability to Cope (JAC) (Jones-Jessop and Stein 1991)

Clinician's Overall Burden Index (COBI (Jones-Jessop and Stein 1991)

Beck Depression Inventory (Vines and Williams-Burgess 1994)

Rosenburg's Self Esteem Scale (Vines and Williams-Burgess 1994)

Scoring system showing improvement in focus problem (Dawson et al. 1998)

Personal Adjustment and Role Skills Scale (PARS 11) (Jones-Jessop and Stein 1991)

Problem solving strategies and parent-child relationship on

scale of 1-10 for sleeping problems (Astill 1998)

Client Satisfaction Tool (Bear and Bowers 1998)

OVERALL ASSESSMENT

Bureaucracy (Wensing et al. 1994)

The satisfaction with care schedule (Jones-Jessop and Stein 1991)

Identification of health need (Twinn and Shiu 1996)

Service provision (Twinn and Shiu 1996)

Organisation of health care (Twinn and Shiu 1996)

Appendix 2: Matrix of issues arising from PHN manager group interviews

Good quality System	Bad quality System	Good quality Relationship	Bad quality Relationship	Good quality Technical	Bad quality Technical
Seen within 24 hours (M)	Environment - not suitable for hearing tests (M) Quality not documented Broad job description	Giving support at appropriate time (M)	Personalities differ (M)	Special child welfare bag (M)	Poor training in vision and hearing (M) PHNs own hearing (M) Hearing tests done at 9 months instead of 7-8 months (M)
Standardised child health card (M)	No meetings re. what PHNs are doing (M)	Identifying professional vs. friend relationship at the outset (M)	People overloaded on first visit (M)	Weighing as a way of getting people to come to clinics (M)	Advice about safety (M) Great videos not being used (M)
Standardised policy and protocol (M)	People don't know what is expected of them (M)	Interest in the person and their baby (M)	Not asking clients what they want (M)	Taking off clothes - disputed (M)	Conflict of advice from practice nurses (M)
Interested in child welfare (M)	If not doing prescribed visits - need for objective and measurable criteria (M)	Follow-up timely and regular (M)	Financial problems limits ability to take time off work to come to clinics	Giving where to go is ? information (M)	Lack of reflection on what is being done
Obligation from management to do child welfare (M)	Influence of GP practices interested in child welfare (M)	Saying what you have done, why you have done it and what you will do the next time (M)	No interest in child health	Setting explicit aims and objectives	
Ring for appointment before visiting (M)	Focus on standard but subject to distractions	Approach the way you would want to be approached (M)	Length of time in area - disputed - good for access same thing wherever bad because lack of reflection	Development of structures for mother infant crisis intervention	
Available for contact - Written info (on white cards) re availability (M)	Doing visits just for sake of filling up card	Always being professional (M)	Coming to clinic – taking responsibility for own health	Need for a midwifery qualification	
Pre-formatted health education packages (M)	Inability to say what we do	Length of visits		Good to have students	
Policing (M) Checking up / policing	Erosion of role by others - recent introduction of other groups	Number of visits			
everybody seen once and after that PHNs should decide	Rigidity of PHNs				

Good quality System	Bad quality System	Good quality Relationship	Bad quality Relationship	Good quality Technical	Bad quality Technical
Green card causes excessive visits - disputed	Size of populations				
Identifying the difference between a practice nurse service and a PHN service	Feeling of being threatened Easy to discredit because we don't have an objective assessment tool				
Use of clinics with older children more beneficial	Constantly equated with health visitors				
Recently educated					
Out of hours service vs. if people wanted to come they would	Cost implications				
Home visits good vs. nobody wants home visits	Children with childminders ? should we be visiting the childminders home				
Lack of clarity for others because of clack of clarity for ourselves					
Antenatal care - vs. resources already stretched					
Importance within overall context - demonstrate same					
? need for 3 year and 4 year visits		Subjectivity of need for visits vs. PHNs should be able to know themselves the families who need follow-up			

Appendix 3: Questionnaire development guide

A guide for questionnaire construction reproduced from Selltiz et al. 1976. Copied from Cohen L, Manion L (1994) Research Methods in Education. 4th Edition. London: Routledge Falmer (p95).

Decisions about question content

1. Is the question necessary? Just how will it be useful?
2. Are several questions needed on the subject matter of this question?
3. Do respondents have the information necessary to answer the question?
4. Does the question need to be more concrete, specific and closely related to the respondent's personal experience?
5. Is the question content sufficiently general and free from spurious concreteness and specificity?
6. Do the replies express general attitudes and only seem to be as specific as they sound?

Decisions about question wording

1. Can the question be misunderstood? Does it contain difficult or unclear phraseology?
2. Does the question adequately express the alternative with respect to this point?
3. Is the question misleading because of unstated assumptions or unseen implications?
4. Is the wording biased? Is it emotionally loaded or slated towards a particular kind of answer?
5. Is the question wording likely to be objectionable to the respondent in any way?
6. Would a more personalised wording of the question produce better results?
7. Can the question be better asked in a more direct or a more indirect form?

Decisions about form of response to the question

1. Can the question best be asked in a form calling for check answer (or short answer of a word or two, or a number) free answer or check answer with follow-up answer?
2. If a check answer is used, which is the best type for this question - dichotomous, multiple-choice ("cafeteria question), or scale?
3. If a checklist is used, does it cover adequately all the significant alternatives without overlapping and in a defensible order? Is it of reasonable length? Is the wording of items impartial and balanced?
4 Is the form of response easy, definite, uniform and adequate for the purpose?

Decisions about the place of the question in the sequence

1. Is the answer to the question likely to be influenced by the content of the preceding questions?
2. Is the question led up to in a natural way? Is it in correct psychological order?
3. Does the question come too early or too late from the point of view of arousing interest and receiving sufficient attention, avoiding resistance, and so on?

Appendix 4: Dimensions

DIMENSIONS OF QUALITY IN THE PUBLIC HEALTH NURSING SERVICE TO FAMILIES WITH INFANTS UNDER ONE YEAR OF AGE

Combined Literature Review and group discussions

Policy: Free at the point of entry
Access by all
Influence of child care act 1991
Child protection vs. Child health
Visibility of children in PHN work
Funding for child health work
Surveillance vs. support
Bureaucracy
Relevance
Influence of the change in immunisation administration
Only one nurse going in to house
Multiple client groups
Flexi-time
Policy for child health
Permenancy / temporary PHNs
Equitable spread of service
RGN doing child welfare where PHNs are not available
Relief for child welfare

Provider: Gender
Age
Years in area
Previous experience
Midwifery qualification
Perceived importance of work with Families
Education for community work
Belief in the service

Recipient: Age
Marital status
Parity
Support network
Socio-economic status
Educational level
Perceived ability to cope
Medical problem with baby / mother
Health beliefs
Perceived Vulnerability: mobile families
Prioritise prems

Context: Geographical base

Multiple client groups
Acceptability
Adequacy of service
Local geographic access
Rural vs. Urban vs. City
Influence of material deprivation
Adequacy of other services: practice nurses / gps / social workers/ speech therapy/ AMOs / la leche / independent midwives
Longitudinality: Continuity of care
Overall workload
Material resources
Informal contact

Provision: Relative service provision compared with other PHN areas
Home vs. Clinic
Timing of first visit / birth notifications in time
Timing of other visits
Nurmber of other visits
Antenatal contact
Unsolicited nature of work
Community level working for families
Appointments
Childminder
Influence of mothers returning to work
Referral pathways
Regular times for aceess either through clinics or telephone contact
Presence of liaison nurses
Walk in clinics

Health centre
Suitability
Location
Atmosphere: Smoky/ dirty
Available at specific times for contact
Phones ringing during clinics
Accessibility for buggys
Convenience to area
Presence of PHN in outreach clinics

Process
Areas for discussion during visits
Factors necessary to build up a good relationship with mothers
Normality
Quality of hearing tests
Vision tests
Developmental wequipment
Hearing tests on yearly basis for PHNs
Overloading on first visit
Mothers opening up about other problems in the household
Identifying what is normal for that family context
Vibes from mothers if they are singled out
Stripping the baby at visits
Non-threathening approach
Maternity hospital bringing babies back for weighing
Setting up networks for mothers
Advantage of being a nurse
need to bounce ideas off
Getting a feeling that something is wrong
being able to ask PHN but embarrassed to ask others
Follow-up on DNAs
length of time of first visit
liaison with Gps
Perception of PHN by client / other groups

Outcomes
Attandance at clinics
Breastfeeding continuation rate
Sensitivity and specificity of hearing tests/vision testing/ speech
Referrals to other disciplines
Referral to other sources of help

Appendix 5: Cover letter for PHN Questionnaire

Address

August 1999

Dear Colleague

I am currently undertaking research for a Ph.D. at King's College London. The research is on the work public health nurses undertake with families with infants (under 1 year of age) with a focus on issues around quality. The questionnaire is divided into five sections: (1) general information, (2) clinic base, (3) multi-disciplinary working, (4) child health and (5) quality. The information from this questionnaire will form the first part of a two-phase study. The second phase of the study will look in more depth at the delivery of the public health nursing service and families with infants.

This is first national study in Ireland which focuses on our involvement with families. The results of the completed study will provide us with a better understanding of the service and will enable us to identify important aspects of public health nursing work with this client group.

This questionnaire is being mailed by An Bord Altranais to every public health nurse on their register. I have not been given the list of public health nurses names from the register and I can guarantee total anonymity to you. No public health nurse, health centre, community care area or Health Board will be identified in the writing up of the study and only myself and my supervisor (Professor Sarah Cowley) will have access to the completed questionnaires.

It takes approx. 20 minutes to complete the questionnaire. Each questionnaire returned provides a valuable contribution to arriving at an overall picture of the service. I would be very grateful if you would complete the enclosed questionnaire and return it to me in the stamped addressed envelope attached before the **21st of September** if possible. Please do contact me at (087) 2889497 if you would like further details.

Yours sincerely,

Sinead Hanafin DPHN, M. Sc.

Appendix 6: PHN Questionnaire

PLEASE TICK THE APPROPRIATE BOXES

Please complete section A and B if you are not currently working as a public health nurse with families with infants

A. Are you currently working as a public health nurse? Yes ☐ No ☐
If no, please specify what you work as _____
If you answered no to question A please do not answer any more questions. Please return the questionnaire in the SAE provided so that you can be accounted for in the analysis.

B. Do you have a remit with families with infants under one year? Yes ☐ No ☐
If no, please specify your post _____
If you answered no to part B please do not answer any more questions. Please return the questionnaire in the SAE provided so that you can be accounted for in the analysis.

GENERAL INFORMATION

1. Do you work mainly in a
City area ☐ Town area ☐ Rural area ☐ Mixed urban / rural area ☐

2. Is the area you work in considered to be materially deprived?
Large part considered deprived ☐ Some part considered deprived ☐ Not considered deprived ☐

3. To which Health Board area are you attached ? _____

4. How is your catchment population determined?
Attached to geographical area? ☐ GP attached ☐ Attached to hospital ☐
Other *please specify* _____

5. Compared with other PHNs in your community care area, is your population size
Bigger ☐ About the same ☐ Smaller ☐ Don't Know ☐

6. What is the size of your total population? _____

7. How many infants in your area are under one year of age? _____

8. Do you have a PHN responsibility for any of the following client groups?

a) Elderly	yes ☐ no ☐	other nurses involved yes ☐ no ☐
b) Psychiatric	yes ☐ no ☐	other nurses involved yes ☐ no ☐
c) Clinical nursing care	yes ☐ no ☐	other nurses involved yes ☐ no ☐
d) Terminally ill	yes ☐ no ☐	other nurses involved yes ☐ no ☐
e) Schoolchildren	yes ☐ no ☐	other nurses involved yes ☐ no ☐
f) Physically handicapped	yes ☐ no ☐	other nurses involved yes ☐ no ☐
g) Mentally handicapped	yes ☐ no ☐	other nurses involved yes ☐ no ☐
h) Home helps	yes ☐ no ☐	home help organiser yes ☐ no ☐
j) Special responsibility	yes ☐ no ☐	*please specify* _____
k) Other *please specify*	_____	

9. Are you a permanent public health nurse in your current area? Yes ☐ No ☐

10. Do you work full-time as a public health nurse? Yes ☐ No ☐
If no, please specify (e.g. week-ends only, job-sharing etc.)

_____

_____

11. How long have you been working as a public health nurse in your current area ?
< 1 yr 1-2 yrs ☐ 3 - 5 yrs ☐ 6-10 yrs ☐ > 10 yrs ☐

12. How many years have you worked as a public health nurse? _____

13. Please tick all of the registrations which you hold ?
RGN ☐ RM ☐ RPHN ☐ RSCN ☐ RNMH ☐ RPN ☐ RNT ☐
Other *please specify* _____

14. In what year did you qualify as a public health nurse? _____

15. Have you undertaken any other accredited courses Yes ☐ No ☐
If yes please specify _____

_____

16. How much education specific to your work with families have you had in the last year?
None ☐ < 1 hour ☐ 1hr - < ½ day ☐ ½ - full day ☐ > full day ☐

17. As a pre-requisite for entry to PHN training, how do you rate a midwifery qualification?
Essential 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ Unnecessary

Please comment if you wish _____

_____

CLINIC BASE

18. Is your main base a health board health centre ? Yes ☐ No ☐
18a. *If no, please specify your main base (e.g. outreach centre etc.)* _____

19. What percentage of your clinic work with families takes place at this base?
0-19% ☐ 20-39% ☐ 40-59% ☐ 60-79% ☐ 80-100%☐

20. How many of the following are available to you at the base?(Please tick as many as apply)
Secretary ☐ Personal telephone line ☐ Voicemail / answering machine ☐ e-mail ☐
Receptionist ☐ PHN telephone line ☐ Mobile phone☐ Fax line ☐

21. How easy or difficult is it for the majority of families with infants to access the base (e.g. is the base central for the majority of families?)
Very Easy Easy ☐ Difficult ☐ Very Difficult ☐

22. How easy or difficult is it for families with infants to make contact with you?
Very easy ☐ Easy ☐ Difficult ☐ Very difficult ☐

23. Please indicate how happy/unhappy you are with the following aspects of the clinic base

Please ring the appropriate face where ☺[1] is very happy and ☹[5] is very unhappy

a. Comfort	☺[1]	○[2]	😐[3]	😕[4]	☹[5]
b. Cleanliness	☺[1]	○[2]	😐[3]	😕[4]	☹[5]
c. Decorative order	☺[1]	○[2]	😐[3]	😕[4]	☹[5]
d. Room for hearing testing	☺[1]	○[2]	😐[3]	😕[4]	☹[5]
e. Room for weighing	☺[1]	○[2]	😐[3]	😕[4]	☹[5]
f. Room for giving advice	☺[1]	○[2]	😐[3]	😕[4]	☹[5]

Please comment on any aspect of your base _____

_____

_____

MULTI-DISCIPLINARY WORKING

24. This question is about referral to, feedback from (following referral) and working relationship with professionals identified in Column 1. Please tick the appropriate boxes in column 2 and ring the appropriate number in columns 3 and 4.

1. Name of Discipline	2. Can you refer directly to this discipline?	3. Do you get feedback? 1 = always or almost always 2 = 70%+ of the time 3 = 35 - 69% of the time 4 = 5 - 34% of the time 5 = never or almost never	4. Working relationship 1 = very good 2 = good 3 = fair 4 = poor 5 = very poor
Community Welfare Officer	Yes ☐ No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
Area Medical Officer	Yes ☐ No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
General Practitioner	Yes ☐ No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
Practice Nurse	Yes ☐ No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
Hearing specialist	Yes ☐ No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
Speech therapist	Yes No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
Eye Specialist	Yes ☐ No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
Social Worker	Yes No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*
Other *please specify*	Yes ☐ No ☐	*Always* 1 2 3 4 5 *Never*	*V.Good* 1 2 3 4 5 *V.Poor*

Please comment _____

_____

25. If there is overlap between your work and the work of any of the professionals identified above, please comment on the impact of this overlap on the service you provide

_____

_____

26. Please comment on any other services in your area for families with infants (e.g. liaison nurses, voluntary organisations, community midwives etc.)

_____

_____

27. What percentage of infants in your area are routinely seen by the Area Medical Officer?
None ☐ <25%☐ 25-49% ☐ 50-74% ☐ > 75 % All ☐

28. Is there a formal structure in your area which facilitates multi-disciplinary interaction ?
Yes ☐ No
*If yes, please specify*_____

CHILD HEALTH

29. On average, how much time do you spend on child health home visiting each week?

None ☐ < 2 hrs ☐ 2-4 hrs ☐ 5-8 hrs ☐ 9-12 hrs ☐ 13-16 hrs ☐ > 16 hrs ☐

30. On average, how much time do you spend on child health clinics each week?

None ☐ < 2 hrs ☐ 2-4 hrs ☐ 5-8 hrs ☐ 9-12 hrs ☐ 13-16 hrs ☐ > 16 hrs ☐

31. On average, how soon after a baby is born do you receive the birth notification ?

1-2 days ☐ 3-4 days ☐ 5-6 days ☐ 7-10 days ☐ > 10 days ☐

32. On average, how soon after a a baby is born do you carry out the first visit ?

1-2 days 3-4 days ☐ 5-6 days ☐ 7-10 days > 10 days ☐

33. The following table refers to the ages at which the PHN may have contact with families with infants, where that contact usually takes place and how necessary contact is at that time

Please tick the appropriate boxes in column 2 and 3 and ring the appropriate number in column 4.

1) Possible ages for contacts	2) Do you have contact with families at this time?	3) Usually takes place at home (H) or in clinic (C)	4) On a scale of 1-5 how necessary do you think it is to have contact at this time
First visit	Always Usually ☐ Never ☐	H C ☐	*Essential* 1 2 3 4 5 *Unnecessary*
Six weeks	Always Usually ☐ Never ☐	H ☐ C ☐	*Essential* 1 2 3 4 5 *Unnecessary*
3-4mths	Always Usually ☐ Never ☐	H ☐ C ☐	*Essential* 1 2 3 4 5 *Unnecessary*
6-7 mths	Always Usually Never ☐	H C	*Essential* 1 2 3 4 5 *Unnecessary*
9 mths	Always Usually ☐ Never ☐	H C	*Essential* 1 2 3 4 5 *Unnecessary*
12 mths	Always Usually ☐ Never	H ☐ C ☐	*Essential* 1 2 3 4 5 *Unnecessary*

34. In general, do you see infants at times in addition to the ages specified above ?
Yes generally □ Yes occasionally □ Only if there is a problem □

34a. If you answered *yes, generally* to question 34 please identify the ages these contacts take place and whether they take place at home (H) or in the clinic (C)

_____

_____

35. On a scale of 1-5 (where 1 is essential and 5 is unnecessary) how necessary do you think it is for all families with infants to have contact with the PHN?

Essential 1 □ 2 □ 3 □ 4 □ 5 □ Unnecessary

36. On a scale of 1-5 (where 1 is essential and 5 is unnecessary) how necessary do you think it is for families with infants to have regular contact with the PHN?

Essential 1 □ 2 □ 3 □ 4 □ 5 □ Unnecessary

37. With what percentage of families do you have ante-natal contact ? _____

38. Please comment on public health nursing contact with families in the first year of life?

_____

_____

39. Are you available to families at times other than 9-6 (Monday - Friday)? Yes □ No □
39a. *If yes, at what times are you available?*

_____

40. Please indicate how central each of the following elements of your practice is in providing a quality service to families with infants.
(*Please ring the appropriate number where 1 is not central etc.*)

Building a relationship	Not central	1	2	3	4	5	Very central
Giving support to parents	Not central	1	2	3	4	5	Very central
Involving fathers	Not central	1	2	3	4	5	Very central
Maternal health and well-being	Not central	1	2	3	4	5	Very central
Infant health and well-being	Not central	1	2	3	4	5	Very central
Giving advice on feeding	Not central	1	2	3	4	5	Very central
Advice on hygiene	Not central	1	2	3	4	5	Very central
Advice on accident prevention	Not central	1	2	3	4	5	Very central
Referral to other professionals	Not central	1	2	3	4	5	Very central
Referral to other agencies	Not central	1	2	3	4	5	Very central
Carrying out developmental checks	Not central	1	2	3	4	5	Very central
Checking for abuse and / or neglect	Not central	1	2	3	4	5	Very central
Identifying community needs	Not central	1	2	3	4	5	Very central
Developing community services	Not central	1	2	3	4	5	Very central

Other *please specify* _____

41. In what % of cases do you make an appointment to call to the home for the 1st visit?

0-24% □ 25-49% □ 50-74% □ 75-100% □

42. In what % of cases do you make an appointment to call to the home for other visits ?
0-24% ☐ 25-49% ☐ 50-74% ☐ 75-100% ☐

43. What % of the time do you undress infants to examine them ?
0-24% 25-49% ☐ 50-74% 75-100%

44. What % of the time do you undress infants to weigh them ?
0-24% ☐ 25-49% ☐ 50-74% ☐ 75-100% ☐

45. Have you been involved in setting up any formal or informal services for families with infants under 1 year of age in your area? (e.g. breastfeeding support groups, informal networking between mothers, community mothers programme etc.) Yes ☐ No ☐

45a. If yes, please specify _____

_____

QUALITY

46. What do you consider to be the main factors which help you to provide a "high quality" service to families with infants under 1 year?

_____

_____

_____

47. What do you consider to be the main factors which impede you in providing a "high quality" service to families with infants under 1 year?

_____

_____

_____

_____

48. Please give a short description of what you consider to be "quality" in the public health nursing service to families with infants under 1 year

_____

_____

_____

_____

49. Do you wish to make any other comment?

_____

_____

_____

_____

If you would be willing to take part in further research on the public health nursing service to families with infants under 1 year of age I would be grateful if you would complete page 7 and return it to me either separately or with your completed questionnaire.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

Sinéad Hanafin _____

Please complete the following section only if you would be willing to take part in further research

Name: _____

Address: _____

_____

_____

_____

Telephone number: _____

Times available: _____

Community care area: _____

Appendix 7: Follow up reminder letter

Address

26th September 1999

Dear Colleague,

I would like to take this opportunity to thank all of you who have returned the questionnaire on public health nursing and child health. The response has been most heartening and I greatly appreciate your many good wishes and the time and effort you have taken in completing it. When the study is finished I will make every effort to ensure the results are made known to you.

If you have not yet had an opportunity to return the anonymous questionnaire (which is printed on blue paper) I would be very grateful if you could do so as soon as possible. It is important for the study that as many questionnaires as possible are returned so that all views can be taken in to account. If you are not working as a public health nurse with famileis with infants it is still important to return the questionnaire having completed only section A and / or B so that I can account for you in the response rate analysis.

If you did not receive a questionnaire or if it has been mislaid I would be very happy to send you another one. I can be contact at the above address or at the following telephone numbers [telephone numbers]

Thank you for you assistance in carrying out this research.

Yours sincerely,

Sinéad Hanafin M Sc. DPHN

Appendix 8: Manager questionnaire

I am very interested in the views of superintendent and senior public health nurses on public health nursing work with families with infants. I would appreciate if you would consider the following questions either individually or as a group and return your responses to me in the self addressed envelope enclosed.

1. What aspects of the service provided by PHNs to families with infants under 1 year of age do you consider to be "high quality"?

_____

_____

_____

_____

2. With a view to improving quality in the public health nursing service to families with infants under one year of age what elements of the service would you change?

_____

_____

_____

_____

3. What do you consider to be the main factors which help PHNs to provide a "high quality" service to families with infants under 1 year ?

_____

_____

_____

_____

4. What do you consider to be the main factors which impede PHNs in the provision of a "high quality" service to families with infants under 1 year?

_____

_____

_____

_____

5. To what health Board Area are you attached ?

_____

6. Were the above questions completed by
(Please tick the appropriate box)

a) Superintendent PHN only ☐ b) Superintendent & Senior PHN/s ☐ c) Senior PHN s only ☐

Thank you,

_____

Sinéad Hanafin RGN, RM, DPHN, M. Sc.

Appendix 9: Cover letter to managers

Address

24th August 1999

Dear [name of superintendent],

I am currently studying for a Ph.D. at King's College London. As part of this programme I am carrying out research on the work public health nurses undertake with families with infants under 1 year of age with a focus on issues around quality. The first part of this study involves the distribution of a questionnaire to all public health nurses on the Bord Altranais register. It is being distributed by An Bord Altranais in order to protect the anonymity of respondents. The questionnaire has been compiled following a national and international review of the literature and a number of pre-survey focus groups discussions.

The national questionnaire is only intended for public health nurses who have a direct input with families with infants. When you receive this questionnaire please complete questions A and B only, for response rate purposes. I am also very interested in the views of superintendent and senior public health nurses on public health nursing work with families with infants. I would be grateful if you would consider the questions enclosed either individually or as a group and return your responses to me in the self addressed envelope provided.

I would be grateful if you could let the public health nurses working in your community care area know of this study. Please do contact me at [telephone number] if you would like further details.

Sinéad Hanafin RGN, RM, DPHN, M. Sc.

Appendix 10: Follow-up letter to PHN managers

Address

26th September 1999

Dear [name of superintendent],

I would like to take this opportunity to you if you have already returned the questionnaire on public health nursing and child health to me. The response has been very good and I greatly appreciate your many good wishes and the time and effort you have taken in completing it. When the study is finished I will make every effort to ensure the results are made known to you.

If you have not yet had an opportunity to return the anonymous questionnaire (which is printed on blue paper) I would be very grateful if you could do so as soon as possible. It is important for the study that as many questionnaires as possible are returned so that all views can be taken in to account.

If you did not receive a questionnaire or if it has been mislaid I would be very happy to send you another one. I can be contact at the above address or at the following telephone numbers [telephone number].

Thank you for you assistance in carrying out this research.

Yours sincerely,

_____

Sinéad Hanafin M Sc. DPHN

Appendix 11: Coding frame for questionnaire

GENERAL INFORMATION

Column	Code	Description	Comments
C1	Case	Questionnaire Number	
C2	Area	Type of area: City (1) Town (2) Rural (3) Mixed (4)	99 missing values
C3	Dep	Material Deprivation: Large (1) Some (2) Not deprived (3)	
C4	HB	Health Board: SHB (1) SEHB (2) EHB (3) Midland (4) NEHB (5) MWHB (6) NWHB (7) WHB (8)	
C5	PopDet	Population determined by: Geographical (1) GP (2) Numerical (4) Other (3)	
C6	Compsiz	Comparison of population size with others in CCA: Not applicable (0) Bigger (1) same (2) Smaller (3) Don't know (4)	
C7	Popsiz	Size of population: Not applicable (0) Don't know (4)	
C8	Noinf	Number of infants: Not applicable (0)	
C9	Respeld	Responsibility for **Elderly:** Not applicable (0) Yes (1) No (2)	
C10	Resppsy	Responsibility for **Psychiatric**: Not applicable (0) Yes (1) No (2)	
C11	RespNurs	Responsibility for **Clinical Nursing**: Not applicable (0) Yes (1) No (2)	
C12	Respterm	Responsibility for **Terminally ill**: Not applicable (0) Yes (1) No (2)	
C13	Respsch	Responsibility for **Schoolchildren**: Not applicable (0) Yes (1) No (2)	
C14	RespPH	Responsibility for **Physically handicapped**: Not applicable (0) Yes (1) No (2)	
C15	RespMH	Responsibility for **Mentally handicapped**: Not applicable (0) Yes (1) No (2)	
C16	RespHH	Responsibility for **Home helps**: Not applicable (0) Yes (1) No (2)	
C17	Respsp	Special Responsibility: Not applicable (0) Yes (1) No (2)	
C18	Respoth	Other Responsibility: Not applicable (0) Yes (1) No (2)	Please specify
C19	RGNeld	Other nurses involved elderly Not applicable (0) Yes (1) No (2)	
C20	RGNpsy	Other nurses involved Psychiatric: Not applicable (0)Yes (1) No (2)	

Column	Code	Description	Comments
C21	Rgncnc	Other nurses involved Clinical nursing care: Not applicable (0) Yes (1) No (2)	
C22	Rgnterm	Other nurses involved Terminally ill: Not applicable (0) Yes (1) No (2)	
C23	Schnurs	School nurse involved: Not applicable (0) Yes (1) No (2)	
C24	RgnPH	Other nurses involved Physically Hand. Not applicable (0) Yes (1) No (2)	
C25	RgnMH	Other nurses involved Mentally Hand: Not applicable (0) Yes (1) No (2)	
C26	Homehlpo	Home Help Organiser: Not applicable (0) Yes (1) No (2)	
C27	OthrSpR	Other nurses involved Special Responsibility: Not applicable (0) Yes (1) No (2)	
C28	Rgnoth	Other nurses involved Other: Not applicable (0) Yes (1) No (2)	
C29	Perm	Permanent PHN: Yes (1) No (2)	
C30	FT	Full-time: Yes (1) Part- time (2) Job-Share (3) Other (4)	
C31	YrsA	Number of years in area: < I yr (1) 1-2 yrs (2) 3-5 yrs (3) 6-10 yrs (4) > 10 yrs (5)	
C32	YrsPHN	Number of years worked as PHN	
C33	RSCN	Registered Nurse Sick Children: Yes (1) No (2)	
C34	RNMH	Registered Nurse Mentally Handicapped: Yes (1) No (2)	
C35	RPN	Registered Psychiatric Nurse: Yes (1) No (2)	
C36	RNT	Registered Nurse Tutor: Yes (1) No (2)	
C37	YrQual	Year of qualification	
C38	Cert	Number of Certificate courses undertaken: None (0) -	
C39	Dip	Number of Diploma courses undertaken: None (0)	
C40	Bach	Bachelors: Yes (1) No (2)	
C41	Mast	Masters Yes (1) No (2)	
C42	EdLY	Education undertaken in past year: None (1) < 1 hour (2) 1 hr – ½ day (3) ½ day – 1 day (4) > full day (5)	
C43	Midq	Necessity for midwifery: Essential (1) – Unnecessary (5) Don't Know (10)	Comment if wish

CLINIC BASE

Column	Code	Description	Comments
C44	HC	Base = Health Board Centre Yes (1) No (2)Other (3)	
C45	WorkB	% of work which takes place at base: Not applicable (0) 0-19% (1) 20-39% (2) 40 – 59% (3) 60-79% (4) 80 – 100% (5)	
C46	Comsec	Availability of secretary: Yes (1) No (2)	
C47	Comtel	Availability of Personal telephone line: Yes (1) No (2)	
C48	Comans	Availability of Voicemail/answering machine: Yes (1) No (2)	
C49	Comeml	Availability of e-mail: Yes (1) No (2)	
C50	Comrec	Availability of Receptionist: Yes (1) No (2)	
C51	ComPHN	Availability of shared telephone line: Yes (1) No (2)	
C52	Commph	Availability of Mobile Phone: Yes (1) No (2)	
C53	Comfx	Availability of Fax line: Yes (1) No (2)	
C54	Access	Ease of access: Very easy (1) easy (2) Difficult (3) Very Difficult (4)	
C55	Contact	Ease of contact: Very easy (1) easy (2) Difficult (3) Very Difficult (4)	
C56	Comfort	Happy with comfort of clinic base Very happy (1) - Very unhappy (5)	* Comment if wish
C57	Clean	Happy with cleanliness of clinic base Very happy (1) - Very unhappy (5)	
C58	Décor	Happy with decoration of clinic base Very happy (1) - Very unhappy (5)	
C59	Hear	Happy with Hearing room Very happy (1) - Very unhappy (5)	
C60	Weigh	Happy with weighing room Very happy (1) - Very unhappy (5)	
C61	Advice	Happy with advice room Very happy (1) - Very unhappy (5)	

MULTI-DISCIPLINARY WORKING

Column	Code	Description	Comments
C62	Refer CWO	Refer directly to Community welfare Officer: Not applicable (0) Yes (1) No (2)	
C63	Refer AMO	Refer directly to Area Medical Officer Not applicable (0) Yes (1) No (2)	
C64	Refer GP	Refer directly to General Practitioner Not applicable (0) Yes (1) No (2)	
C65	Refer PN	Refer directly to Practice Nurse Not applicable (0) Yes (1) No (2) None (4)	
C66	ReferHS	Refer directly to Hearing Specialist Not applicable (0) Yes (1) No (2)	
C67	ReferSt	Refer directly to Speech Therapist Not applicable (0) Yes (1) No (2)	
Column	Code	Description	Comments
C68	ReferES	Refer directly to Eye Specialist Not applicable (0) Yes (1) No (2)	
C69	Refer SW	Refer directly to Social Worker Not applicable (0) Yes (1) No (2)	
C70	Refer oth	Refer directly to Other Not applicable (0) Yes (1) No (2)	
C71	FeedCWO	Feedback from CWO: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C72	FeedAMO	Feedback from AMO: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C73	FeedGP	Feedback from GP: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C74	FeedPN	Feedback from Practice Nurse: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C75	FeedHS	Feedback from Hearing Specialist: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C76	FeedST	Feedback from Speech Therapist: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C77	FeedES	Feedback from Eye Specialist: Not applicable (0) Always (1) >/= 70% (2) 35-	

		60% (3) 5-34% (4) Never (5)	
C78	**FeedSW**	Feedback from Social Worker: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C79	**Feedoth**	Feedback from other: Not applicable (0) Always (1) >/= 70% (2) 35-60% (3) 5-34% (4) Never (5)	
C80	**RelCWO**	Relationship with Community Welfare Officer: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C81	**RelAMO**	Relationship with area Medical Officer: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C82	**RelGP**	Relationship with General Practitioner: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C83	**RelPN**	Relationship with Practice Nurse: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C84	**RelHS**	Relationship with hearing Specialist: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C85	**RelST**	Relationship with Speech Therapist: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C86	**RelES**	Relationship with Eye Specialist: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C87	**RelSW**	Relationship with Social Worker: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	
C88	**RelOth**	Relationship with Other: Not applicable (0) V. Good (1) Good (2) Fair (3) Poor (4) V. Poor (5)	**Please Comment**
C89	**SeeAMO**	% routinely seen by AMO None (1) <25% (2) 25-49 (3) 50-74 (4) >75 (5) All (6)	
C90	**Formal**	Formal Structure for multi-disciplinary interaction Yes (1) No (2) Case conferences (3)	

CHILD HEALTH WORK

Column	Code	Description	Comments
C91	TimeH	Average amount of time on home visiting weekly: None (1) < 2 hours (2) 2-4 Hours (3) 5-8 hrs (4) 9-12 hrs (5) 13-16 hrs (6) > 16 hrs (7)	
C92	TimeC	Average amout of time on Child health clinics wkly: None (1) < 2 hours (2) 2-4 Hours (3) 5-8 hrs (4) 9-12 hrs (5) 13-16 hrs (6) > 16 hrs (7)	
C93	BNotif	Receipt of birth notification: 1-2days (1) 3-4 days (2) 5-6 days (3) 7-10 days (4) > 10 days (5)	
C94	FirstV	Carry out first visit: 1-2days (1) 3-4 days (2) 5-6 days (3) 7-10 days (4) > 10 days (5)	
C95	FV	Contact at first visit: Not applicable (0) Always (1) Usually (2) Never (3)	
C96	VSixW	Contact at six weeks: Not applicable (0) Always (1) Usually (2) Never (3)	
C97	V3mth	Contact at 3-4 mths: Not applicable (0) Always (1) Usually (2) Never (3)	
C98	V6mth	Contact at 6-7 mths: Not applicable (0) Always (1) Usually (2) Never (3)	
C99	V9mth	Contact at 9 mths: Not applicable (0) Always (1) Usually (2) Never (3)	
C100	V12mth	Contact at 12 mths: Not applicable (0) Always (1) Usually (2) Never (3)	
C101	PFV	Place of first Visit Not applicable (0) Home (1) Clinic (2) Either (3)	
C102	PsixW	Place of 6 week visit: Not applicable (0) Home (1) Clinic (2) Either (3)	
C103	P3mth	Place of 3 month visit: Not applicable (0) Home (1) Clinic (2) Either (3)	
C104	P6mth	Place of 6 month visit Not applicable (0) Home (1) Clinic (2) Either (3)	
C105	P9mth	Place of 9 month Visit Not applicable (0) Home (1) Clinic (2) Either (3)	
C106	P12mth	Place of 12 month visi Not applicable (0) Home (1) Clinic (2) Either (3)	
C107	NecFV	Necessity for first visit Essential (1) Unnecessary (5)	
C108	Nec6wk	Necessity for 6 week Essential (1) Unnecessary (5)	
C109	Nec3mth	Necessity for 3 month Essential (1) Unnecessary (5)	
C110	Nec6mth	Necessity for 6 month Essential (1) Unnecessary (5)	
C111	Nec9mth	Necessity for 9 month Essential (1) Unnecessary (5)	
C112	Nec12mth	Necessity for 12 month Essential (1) Unnecessary (5)	

Column	Code	Description		Comments
C113	Othtim	See infants at times other than above: Yes generally (1) Yes Occasionally (2) Only if a problem (3)		
C114	AllF	See all families	Essential (1) Unnecessary (5)	
C115	Regfam	See families regularly	Essential (1) Unnecessary (5)	
C116	AnteN	% of families seen ante-natally		Please comment
C117	Outhrs	Out of hours service	Yes (1) No (2) Voluntary (3)	
C118	Crel	Centrality of building a relationship	Not central (1) very central (5)	
C119	CenSup	Centrality of support	Not central (1) very central (5)	
C120	Cenfat	Centrality of involving fathers	Not central (1) very central (5)	
C121	CenMH	Centrality of Maternal health	Not central (1) very central (5)	
C122	CenIH	Centrality of infant health	Not central (1) very central (5)	
C123	Cenadf	Centrality of Advice on feeding	Not central (1) very central (5)	
C124	Cenadh	Centrality of advice on hygiene	Not central (1) very central (5)	
C125	Cenap	Centrality of accident prevention	Not central (1) very central (5)	
C126	Cenrp	Centrality of referral to professionals	Not central (1) very central (5)	
C127	Cenoa	Centrality of referral to other agencies	Not central (1) very central (5)	
C128	Cendev	Centrality of developmental checks	Not central (1) very central (5)	
C129	Cenab	Centrality of checking for abuse	Not central (1) very central (5)	
C130	CenCN	Centrality of identifying community needs	Not central (1) very central (5)	
C131	CenCS	Centrality of developing community services	Not central (1) very central (5)	
C132	Appl	Appointment to call for first visit	Not applicable (0) 0-24 (1) 25-49 (2) 50-74 (3) 75-100 (4)	
C133	Appoth	Appointment to call for other visits	Not applicable (0) 0-24 (1) 25-49 (2) 50-74 (3) 75-100 (4)	
C134	undex	Undress baby to examine	0-24 (1) 25-49 (2) 50-74 (3) 75-100 (4)	
C135	Undw	Undress baby to weigh	0-24 (1) 25-49 (2) 50-74 (3) 75-100 (4)	

Appendix 12: Qualitizing quantitative data

Qualitizing quantitative data

This exemplar illustrates the series of steps taken to qualitize data from one question on the questionnaire.

Question asked

1. Do you work mainly in a

City area □ Town area □ Rural area □ Mixed urban / rural area □

Step 1: Frequency count of individual variable using SPSS

Area

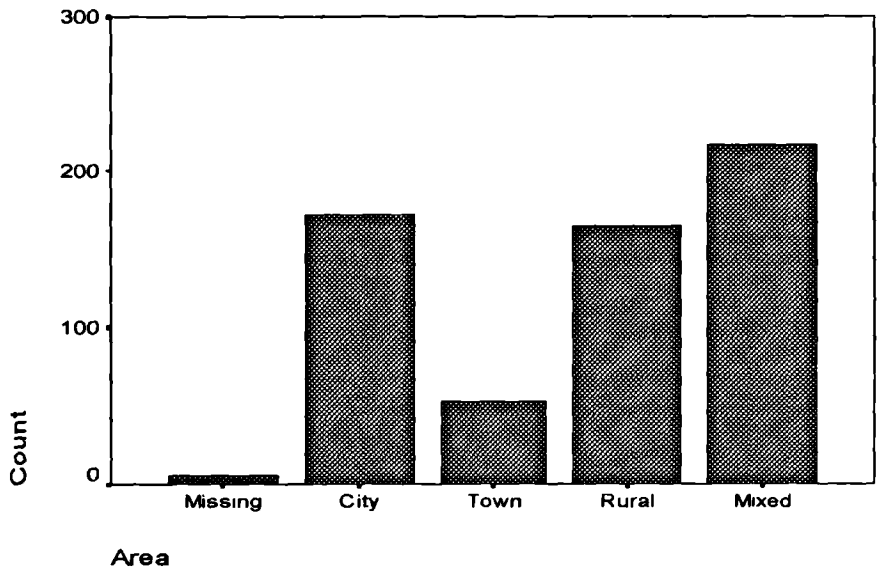
		Frequenc	Percent	Valid Percent	Cumulativ Percen
Valid	City	17	28.1	28.5	28.
	Town	5	8.5	8.7	37.
	Rural	16	26.9	27.3	64.
	Mixed	21	34.5	35.0	99.
	99.00		.5	.2	99.
	Total	60	98.5	100.0	
Missing	99.00		1.3		
	Total		1.5		
Total		60	100.0		

Step 2: Report on individual variable

Rural/Urban Spread

A total of 608 respondents (99%) identified the type of area in which they worked. The largest percentage work in mixed rural urban areas (36%, n 218). Twenty-eight percent (n=172) work in city areas, 27% work in rural areas (n 165) and less than one in ten work in towns (8.7%, n=53). It would appear that the majority of PHNs working in towns also have a rural area and this would explain the small numbers attached to towns only and the large number attached to mixed urban rural areas. (pg 5 A preliminary profile of public health nurses and their areas)

Figure 1: Type of Area: Urban / Rural Spread



Step 3: Comparison with other variables

3.1 Comparison with structural variables

This comparison drew on the following variable

Q1: Type of area

Q20: Secretarial support available at the clinic base

Q3: Health board attachment

Of those PHNs (n=94) who have secretarial support, 55 work in mixed rural urban areas, 20 work in cities, 10 work in towns, and 7 work in rural areas. (A further 2 respondents with secretaries did not identify what kind of area they worked in.) These differences are statistically significant across type of area. The Mid-Western health board area has a high proportion of mixed urban rural areas and this may explain the higher than expected number of PHNs with secretaries in mixed areas. It is not surprising that PHNs working in rural areas report very low levels of secretarial support as they are likely to be working from small one-person health centres (Page 5 The clinic base).

3.2: Comparison with process variables

The excerpt below draws on the document *Public health nurses and the multi-disciplinary team* in order to compare the working relationship between the PHN and social worker with the type of area to which the PHN is attached.

Less than half of all respondents felt their relationship with the social worker was good (23%; n 129) or very good (19.8%; n 112). Twenty-five percent of PHNs said their relationship was fair. Almost one in every three respondents (31.9%; n 181) said their relationship was either poor (19%; n 106) or very poor (13%; n 75). Respondents most likely to say their relationship with social workers were poor or very poor worked in city areas (25.5% and 18.6% respectively) rather than in mixed rural / urban areas (16% and 9% respectively) and this finding was statistically significant (x^2 45.796; df 15; p .000). (Public health nurses and the multi-disciplinary team p 10)

3.3 : Comparison with an aspect of service quality

The following example draws on a variable relating to service quality (ease of contact) to examine whether there is any relationship between this and the type of area to which the PHN is attached.

Ninety-eight percent (n – 601) of respondents answered the question "How easy or difficult is it for families with infants to make contact with you". Four options were provided (Very easy, easy, difficult, very difficult). Almost 80% (480) of respondents reported that it was 'easy' (51.7%) or 'very easy' (27.6%) for families to make contact with them. Seventeen percent reported that it was 'difficult' and only 21 (3.4%) respondents reported that it was 'very difficult' (Figure 7). Ease of contact was significantly related to ease of access. PHNs who reported that access was 'easy' or 'very easy' were much more likely to report contact as 'easy' or 'very easy' (x^2 217.618; df 9; p − .000).... Significant differences were noted in respect of "type of area" in which the PHN worked. PHNs in city areas identify contact as being 'difficult' or 'very difficult' more often than expected (52 observed vs. 33.7 expected) and those in rural areas report the converse. (Pg14 - 15 The clinic base)

Step 4: Summarise

The summary presented below contains examples of comparative (differences across health board areas and rural / urban spread), normative (number of years working as a PHN) and inferential (implication of length of time working on the type of area PHN working in) data drawn from a variety of different variable. These were

Rural - urban spread (Q1)

- Material deprivation (Q2)

- Health board (Q3)
- Length of time in area (Q11)
- Length of time working as a PHN (Q12)

Summary 1

There were statistically significant differences between health board areas and between rural / urban spreads. Those in rural areas are more likely to be working in their area for 10 or more years and those in city areas less likely. The mean average number of years worked as a PHN was 13.2 with a range of 1-35 years. PHNs who had been working for more than 14 years were less likely to be working in "large part deprived" areas compared with those PHNs who had been working for 14 or less years.(A preliminary profile of public health nurses and their areas. P23).

Appendix 13: Coding categories from open ended questions on PHN questionnaire relating to service quality

Categories arising from "What do you consider to be the main factors which help you to provide a "high quality" service to families with infants under 1 year?"

A: Relationships
A1: Relationship with family
A2: Link to others
A3: Communication
A4: Knowing and being familiar with the family
A5: Being known by the family

B: Service

B1: Knowledge/ Skills / Information
B2: Elements of the service
B3: Focus of the service
B4: Caseload
B5: General area / population

C: Time
C1: Enough time
C2: At the right time
C3: Giving time
C4: Flexi-time

D: Contact
D1: Home
D2: Number of visits
D3: Clinics
D4: Phone contact
D5: Health centre
D7: Appointments
D8: First visit - birth notification antenatal
D9: Prioritising

E: Outcomes
E1: PHN service
E2: Client outcomes
E3: Accessibility
E4: Availability
E5: Continuity
E6: consistency

F: Other
Personal characteristics
F: Knowledge of local services

"What do you consider to be the main factors which impede you in providing a "high quality" service to families with infants under 1 year?"

A: Caseload
A1 elements
A2 Diversity
A3 Size / distance
A4: Absence of support staff
A5: Shortage of staff

B: Time
B1: Mothers time
B2: PHN time
B3: PHN inflexibility

C: Clinic
C1: Situation
C2: Facilities
C3: General structure
C4: Layout

D: Families
D1: Working mothers
D2: Family features
D3: Attitudes of PHNs
D4: Attitudes of family
D5: Issues around communication

E: Other services
E1: Similar services
E2: PHN resources vs others
E3: PHN interaction with other
E4: Lack of other services

F: management
F1: Support for on-going education
F2: Structural issues (esp. birth notifications, travel, funding)
F3: Attitudes of management
F4: Policy
F5: Relief staff
F6: Support

G: PHN
G1: Knowledge
G2: Personal characteristics
G3: Prioritise over other work

H: Other

"Please give a short description of what you consider to be "quality" in the public health nursing service to families with infants under 1 year?"

A: Relationship
A1: Relationship family / community
A2: Link to others

B: Service
B1: Knowledge and skills of PHN
B2: Elements of the service
B3: Focus of the service

C: Time
C1: Enough time
C2: At the right time
C3: Giving time

D Contact
D1 Home
D2 Number of visits
D3: Clinics
D4: Phone contact
D5: Health centre
D6: Appointments
D7: First visits

E: Outcomes
E1: PHN service
E2: Client outcomes

Coding categories from open ended questions on managers questionnaire relating to service quality

Categories arising from three open-ended questions on managers questionnaire

Q1: "What aspects of the service provided by PHNs to families with infants under 1 year do you consider to be "high quality" ?

A: Policy
A1: Universal policy
A1: Local standards

B: Elements of service
B1: Information and advice
B2: Developmental checks / Screening
B3: Referrals
B4: Support Groups

C: Contact
C1: Home visiting
C2: 1st visit
C3. amount
C6. Clinics
C7: Availability and access

D: PHN
D1: PHN skills / knowledge

Q2: "With a view to improving quality in the public health nursing service to families with infants under 1 year of age what elements of the service would you change?

A: Staffing / Resourcing of service
A1: Specialists
A2: Skill-mix
A3: Other Resources

B: Standards / Policies / Audit / Strategies

C: Contact
C1: ante-natal
C3: 1st visit
C5: More intensive in first year
C2: More flexible

D: Content
D2: Groups
D3: Clinics
D4: Focus

E: PHN Education

Q3: What do you consider to be the main factors which help PHNs to provide a high quality service to families with infants under 1 year ?

A: Education
A1: Pre-registration
A2: Specific skills
A3: Evidence based practice

B:Standards / policy / management role
B1: Generalist vs. Specialist

C: Accommodation

D: Multi-disciplinary working

E: Elements of the service
E1: Support groups / advice and screening
E2: Antenatal Involvement
E3: Relationship with parents

G: Service delivery
G1: Availability /accessibility / flexibility
G2: Planning And Developing Service As A Team
G3: Skill Mix
G4: Time

Q4: What do you consider to be the main factors that impede PHNs in the provision of a high quality service to families with infants under 1 year?

A: Organisation

A1 Lack of Resources
A1 Leave Replacement
A2 Skill mix / specialism
A3 Lack of flexibility
A4 PHN Education

B: Population size / diversity / curative caseload
B1 Caseload
B2 Diversity of Caseload
B3. Elderly and terminally ill
B4 Size of caseload
B5; Geographical spread
B6: Time constraint

C: Social change
C1: Working parents
C2: Other changes in society

D: Multi-disciplinary

Appendix 14: Participant information sheet / Ethics approval

PARTICIPANT INFORMATION SHEET

Study title

Issues of quality in the public health nursing service to families with infants

Invitation

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives, your public health nurse or your GP if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

This study will look at your experience of the public health nursing service. It will try to discover what that experience was like for you and how that experience has affected you. You will be asked to take part in a group discussion with between five and six other parents who also have infants. The group discussion will last approximately 45 minutes. Discussions will be held at a place that is convenient for you and the others involved in the discussion.

Why have I been chosen?

You have been asked by the public health nurse if you are interested in taking part because you have a baby under one year. Your public health nurse is one of six public health nurses who will be inviting parents to contact me. I am planning to include about forty parents in total and other parents involved in the discussion may or may not be from the same area as you.

Do I have to take part?

Taking part in this study is entirely voluntary, it is up to you to decide whether or not to take part. If you do decide to take part I would like to you ring me at the number written

at the end of this sheet. When you ring me you will be able to ask me about anything that is not clear from this sheet. You may decide at that point not to take part in the study and you are free to withdraw without giving a reason. Even if you do decide to take part you may still withdraw at any time. This will not affect the care that you receive.

What will happen if I decide to take part?

If you agree to take part in this study, I will offer you a choice of what days and times the discussion will be held. The discussions, with your permission, will be tape recorded and will be informal. At the end of the discussions I may use a guideline set of questions to ensure that we have covered some of the important issues. You will also have the opportunity to discuss issues that are important to you relating to your experience of the public health nursing service.

Will my taking part be kept confidential?

All information you provide during the course of this research will be kept confidential. At the beginning of the discussion, I will ask everybody involved to give a commitment that they will keep all information they hear at the discussion confidential. You do not have to use your real name in the discussion. Any information you give me will be seen only by my research supervisor and myself. The interview transcript will not show your name and all materials from the discussions will be stored separately in secure locations. Your anonymity will also be maintained in the final written report that will be submitted as part of my coursework.

What will happen to the results of the research study?

The results of this study will shared with colleagues and service managers, and used to review the service provided to parents.

Who has reviewed the study?

This study has been reviewed by the School Research Ethics Committee, The Florence Nightingale School of Nursing and Midwifery

Contact for further information

Researcher name: Sinéad Hanafin

Contact telephone number: 021-4381143

PAGE NUMBERING AS FOUND IN THE ORIGINAL THESIS

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University of London

Ethical Approval Granted (But outside jurisdiction)

Sinead Hanafin
Ath Dara
Kerry Road
Tower, Blarney
Co Cork
Ireland

Friday, 4th May 2001

Dear Ms. Hanafin,

Re: Proposal 442 + 'Exploration of issues of quality in the public health nursing service to families with infants.'

Thank you for your proposal. This was considered by the School Research Ethics Committee at its meeting on **27th April 2001.** Please note that we have no jurisdiction within the country where data collection is being undertaken but understand that Ireland does not currently have a mechanism by which you can have your proposal subjected to ethical scrutiny.

The Committee would like to offer their congratulations on your well put together application and have noted that your proposal was very thoughtful and carefully structured.

Good luck with your study.

Best wishes

Yours sincerely

Professor Alison Richardson
Chair, School Research Ethics Committee

c.c: Supervisor : Sarah Cowley
King's College London

Appendix 15: Interview guides

General guide

Bring: Consent forms, participant information sheets, tape-recorder, spare tape-recorder and batteries, tapes, extension lead

Welcome

Individual approval for audio-taping

Confirmation of confidentiality agreement; participants understand that names will not be used in any way nor will information be shared that reveals their identity

Inform participants that at any time during the interview the tape recorder can be turned off

Get consent form(s) signed

Introductions: Familiarise everyone (check if they want to use their own name or if they want a pseudonym)

Check out demographic information

Make sure people finish drinking or eating before starting

Thank people for coming

Ice breaker questions:
What made you participate in this group ?
What is in your mind about quality and the public health nursing service ?

Client group interview guide

You have a small baby, how is that for you ?

Do you think there is a need for the PHN service ?

Have you had much involvement with the public health nursing service ?

Can you tell me about a visit you had from the PHN ?

Can you tell me about a time you visited the health centre ?

Can you tell about an experience you had that you consider to be good ?

Can you tell me about an experience you had that you consider to be bad ?

PHN interview guide

Do you think there is a need for the PHN service to families with infants ?

Can you tell about an experience with families with infants you had that you consider to be good ?

Can you tell me about an experience you had with families with infants that you consider to be bad ?

How would you describe a good quality service to families with infants ?

What are the things that help you provide a good quality service?

What are the things that prevent you from providing a good quality service?

PHN manager guide

Do you think there is a need for the PHN service to families with infants ?

How would you describe a good quality service to families with infants ?

What helps PHNs provide a good quality service?

What prevents PHNs from providing a good quality service?

Appendix 16: Excerpt from field notes

Observation notes

Place: Case study area 2: Date: 16th May 2001

I arrived at the health centre at the same time as a large pre-fab building was being "dumped" outside the health centre door. Apparently, this is to give them a bit more room for storing things in. It looks totally out of place. Two things struck me initially. Firstly, the building was really shabby both inside and out - the floor is "manky" was the first thought that struck me. Secondly, I had huge difficulty parking my car because the health centre is on a corner on a busy road. The centre seemed a bit out of place in this affluent area. Inside the assistant director of public health nursing was giving instructions to a carpenter on where the shelving was to be put up. (is this a good use of assistant director time?). The public health nurse in question was on the phone and she had her diary open in front of her. It was obvious that she was trying to make an appointment to meet with someone (but it didn't seem to be working out very well - she kept turning over pages - calling different times). Maybe the person didn't want to meet her. The desk was tidy but the rest of the place was in total disaray. It is really unkempt here - looks like nobody is keeping an eye out for the place. (Case study area 2 - Date16th May 2001)

I asked if they had a particular document. She said, "I think it's in the cabinet - but it's locked and the key is missing".

Appendix 17: Excerpt from interview reflection (CSS 1)

Excerpt from notes written up during the afternoon Date: 15th June 2001

We were interrupted three times during the course of the interview. Firstly, by the cleaner. There was a good bit of friendly chat between the PHN and the cleaner. The PHN was asking about the cleaner's mother (who is obviously not well) and she made arrangements to visit her the following evening. After about another 15 minutes, we were interrupted again, this time by the RGN who had come to check the calls for the following week while the PHN would be away. They made arrangements to meet up for lunch after the interview (they seem to have a really good working relationship). As we were coming to the end of the interview we were interrupted again by the assistant director of public health nursing who had made arrangements to call but who was running late (so she clashed with my time with the PHN). An interesting comment about "you mightn't see anybody here for months and then everybody comes together!". Does this mean this PHN has little interaction with others ?. Does she think that the communication between management and herself could be better ? Maybe she was a bit fed-up that everybody came the same day ?. It seems to be very difficult to get uninterrupted time for discussion.

Appendix 18: Example of memo

Client group interview case study area 3

Excerpt to which the memo refers

*Katy: I think they are a bit hap-hazzard now like really 217

*Researcher: I'm interested in that - can you tell me a little more ? 218

* Katy: Yeah a little bit now like I got the little letter in through the door like last week to tell me (.2) am you know what I mean like for the hearing and the nine month check up. And I only got it on Thursday. I only got it on Tuesday. I only got it on Tuesday and like the appointment was for Wednesday] 219

*Ann-Marie: [that's that's the thing now what] I find like 220

*Katy: [I only got it on Tuesday and like I did say it to her like well now because it was very short notice and she said well there was a problem with the post and a long week-end and everything so I said wel::l and you know we get very short notice] and that like and 221

*Ann-Marie: [no no you don't . We actually went away on holiday we were away somewhere for three weeks and while we were away they sent out two appointments because we didn't turn up for the first one and I think she rang. So I'ld say she was wondering where I had gone now like and am (.4) like I had to ring then when I came back and try and apologise instead of you know and look for a bit more notice and particularly for work now and a weeks notice in my case is not an awful amount of time like and get time off work and that 222

Memo

"power differential" - you will be sent for, no real choice about what day or time - short notice and then client almost apologetic when ringing up because they have been away (when they should be complaining about the short notice ?)". This seems to raise questions about what the focus of the service is - is it for the client or is it for the PHN ??. Does the PHN think it is for the client and the client think it is for the PHN ? What does this mean for the process - is this about client availability ? - maybe a need for change within the service to accommodate parents who are working ?

Appendix 19: Categories of codes for interviews

Coding categories of interview data

1 Utilisation

1.1 Initiation / availing
1 2 Knowledge of
1 3 Alternatives

2 Components

2 2 Checking
2 3 Pre GP

3 Organisation

3 1 Availability
3 2 Resources
3 3 Workload
3 4 Change

4 Providers

4 1 Characteristics
4 2 Focus

5 Delivery

5 1 Contact
5 1 1 First visit
5 2 Rushed / busy / understaffed / in Time / Temporal
5 3 Consistency
5 4 Continuity
5 5 Common-sense
5 6 Knowledge

6 Judgement

6 1 Good quality
6.2 poor quality

Free nodes: February 2002

Free nodes

F 1 Need / /Include PHN need from FG ML
F 2 Process
F 3 Preparation
F 4 Client characteristics
F 5 Agreement
F 6 Disagreement
F 7 Practicalities
F 8 Feelings / attitudes
F 9 Home visit
F 10 Outcome
F 11 Relationship
F 12 Incidents
F 13 Response to requests
F 14 Question
F 16 Clarification
F 17 Misc
F 18 Comparisons
F 19 Confirmation / Feedback
F 20 Can't but - Want to but - Should but
F 21 Same (uniformity) / different
F 22 Seen / being seen / visible / tangible (add on from manager data)

Appendix 20: Example of coding

Example of coding from interview

Excerpt from group interview: CSS4

*Rachel: Well ..when you say about the first two weeks there when I was explaining to you about the public health nurse making the appointment. For the first two weeks this time, after the third child I mean to be honest, I thought I'ld never again recover and like I had a very weak tummy muscle and I suppose that 's really the reason you know I was so glad the public health nurse made the appointment. But you know what {Aoife} is saying about being assigned a midwife like I think that is very important. There are certain questions I was asking - you know when can the baby see? and they weren't sure - and ..you know, they were the questions I was dying to know and I would love somebody knowledgeable you know. (***Coding**: Components (2); organisation (3); Provider (4),, Characteristics (4.1) Knowledge (5.6) Need (F1), Process (F2), Preparation (F3) Client (F15))*

*Researcher: And the public health nurse ..? (***Coding**: Clarification (F16), Interviewer (F 26))*

*Rachel: She wasn't too sure. "I think about the six weeks" or, you know, guessing. Now, you know, very nice and I have nothing you know bad or negative to say. She was very nice and asked how I was and everything but { ... (***Coding**: Provider (4),, Characteristics (4.1) Focus (4.2) Knowledge (5.6) Good Quality (6.1) Client (F 15))*

*Julie: {Aren't they a midwives ?. I think I heard that *(**Coding**: Characteristics (4.1))*

*Background : No No, Are they ? (Agreement (F5) Disagreement (F6))

*Rachel: I would guess that that they were but those kinds of questions or you know (.3)- I would like somebody to be assigned to us as well because you are running to the doctor all the time. *(**Coding**: Pre-GP (2.3) Characteristics (4.1) Knowledge (5.6) Need (F1) Agreement (F5) Client F15)*

*Background: yes yes (Agreement (F5))

*Rachel: you know that you would have the nurse and you could say I think he has a sore throat I wonder could you check it yes you need a doctor or it's OK you don't instead of running every day twenty five pounds here and twenty five pounds there because you don't want to take a chance with your child. So there are loads of question that I would like to ask *(**Coding**: Need (F1) Client (F4) Agreement (F 5), Client characteristics (F4), Practicalities (F7) Components (F2) Alternatives (1.3) Pre-Gp (2.3))*

Appendix 21: Sub-categories within category

Things the client knows

The times and availability
The things the PHN knows
The PHN before the first visit
Things about the general PHN service - sees others as well
Who to ask for

Things clients don't know

The times and availability
Is it within my rights to ask
Would the public health nurse know
What the boundaries are
Not knowing whether to contact the GP or the PHN
Not knowing where to bring a child that has a problem with speech

Things the PHN knows

The importance of seeing people often for client initiation
Things about child care
The importance of the first impression
The circumstances parents live in (no car therefore house visit)
"that the client knows them after the first visit"

Things clients need to know

The right times and availability
The scope of the PHNs practice
What it is ok to ask
The standardisation of the service - it is the same here as there as elsewhere
That there is a clinic available
That the PHN will do clinical nursing at home (Jectofer)

What others need to know

The service is valuable so that the appropriate resources can be provided
And so that the PHN service can be seen as or more appropriate for some people that other services e.g practice nurse
That the PHN won't preach to them

What difference knowing makes

Would be more likely to contact the PHN
Know they don't have to be cleaning up for the PHN

Within category KNOWLEDGE according to process: Field notes / interviews / qualitative data from questionnaires

1.1 Pre-contactual

Client needs knowledge of the service generally
Client needs knowledge of the times, availability,
Client needs knowledge of the scope of the service
PHN needs knowledge of client - basic demographic information, potential areas of risk, family support, other resources
PHN needs knowledge of the norms of the service (amount of contact, where the contact takes place, how long the contact takes place over etc.)

1.2 Contactual

Client needs to know the scope of the PHNs practice so that she / he can decide whether to bring up something
Client needs knowledge regarding their specific areas area of need
Client needs to know if there is a problem with their infant
Clients need to know that they are doing a good job in parenting

PHN needs to know the infant is safe and being looked after in a "good enough" way
PHN needs knowledge to enable her to undertake various components of the service - advice and information, growth and development, supporting parents, identification of problems
PHN needs knowledge relating to the development of relationships - interpersonal skills and the giving of support.

1.3. Post contactual

Client needs to know how the service is operationalised - what is the next step - is there further contact - where does it take place
PHN needs to know local services - how to refer - where to refer -
PHN needs to know service norms in terms of recording - evaluation - administration

Outcomes: Knowledge attained by the client as a consequence of the pre-contactual, contactual and post-contactual phases includes

Client has greater knowledge of ways to address the infant, maternal and family needs
Has knowledge of the PHN service that will inform further contacts
Has knowledge of "other" assessment of own parenting

Knowledge attained by the PHN as a consequence of the pre-contactual, contactual and post-contactual phases includes

Knowledge of the individual family circumstances
Knowledge relating to individual parenting needs
Knowledge regarding the health of the infant
Knowledge of "little tips" around what works or does not work for parents
Knowledge gained cumulatively around parents that can assist in community development work

Appendix 22: Description of a category

Converging

A description of what happens after the decision to initiate contact between with the PHN or the client is now described using the term "converging". Factors influencing this point in the process include availability and contactability of both PHN and client where and when it is considered necessary. Service quality can be impeded if successful convergence between client and PHN does not take place.

A decision to initiate the service can be immediately followed by an interaction between the PHN and the client. PHN and client may meet opportunistically through the PHN's clinical nursing work, involvement in school screening, or through a chance meeting by virtue of location. When that happens, this step of converging is not explicit because no separate actions have to be carried out. Here, the quality of the service can be judged on the initiation of the contact as well as the merits of the interaction itself.

Usually contact between client and PHN is not opportunistic as in the case above but instead follows rational initiation of the service. A mother may identify a rash on the infant, bring the infant to the health centre and interact with the PHN. A PHN may arrive at the client's home, interact with the client and undertake the various components of the service. The PHN may want to see the mother and infant for a developmental check or for a hearing check. In these situations, "converging" is not explicit but it is necessary. In order for the mother to meet the PHN at the health centre, the PHN service must be available at a time she can get there and she must know the service is available at that time. In order to request the PHN visit her at home a client (or anybody else, including PHN managers, other disciplines etc), must be able to contact the PHN. For the PHN to meet the client at her home the client must be there at that time and the PHN must know that. If the PHN wants the client to come to a clinic she must be able to make contact with her. In situations where the client or PHN is not available or, are unaware of when and where each are available, contact cannot take place and so, service quality is impeded. Service quality is also impeded if the PHN or client cannot be contacted easily - like if a number of different attempts have to be made in the process of contacting people. At other times, the PHN and client may seek out telephone contact either to make an arrangement for face to face contact or, to have a telephone consultation. If this cannot be accommodated then the quality of the service might be considered to be poor.